



**PERMITTED ADDITIVES TO TOBACCO  
PRODUCTS IN THE UNITED KINGDOM**

Department of Health  
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## PERMITTED ADDITIVES TO TOBACCO PRODUCTS

The following list consists of additives to cigarettes, cigarette papers<sup>\*</sup>, roll-your-own (RYO) tobaccos, cigars and pipe tobacco, permitted for use in tobacco products marketed in the United Kingdom. The list includes additives recorded in Appendix VII of the Second Report of the Independent Scientific Committee on Smoking and Health<sup>1</sup>, Appendix 1 of the Committee's Fourth Report<sup>2</sup> and in the Department of Health list of Permitted Additives to Tobacco Products in the United Kingdom<sup>3,4</sup> together with any additional permitted but previously unpublished additives arising from the Voluntary Agreement on Additives to Tobacco Products<sup>5</sup>. These may be applied either at a stage in the manufacture of, or directly to, the final tobacco blend or paper. Certain additives are permitted only for use in the course of manufacture of tobacco sheet or cigarette paper (as specified), providing that no free residue remains.

Additives are listed alphabetically under their more commonly used names, with some alternatives in the adjoining column. Percentage inclusion limits are calculated on a dry weight tobacco basis, except for cigarettes where the weight of cigarette paper and associated adhesive are included. Maximum aggregate limits for permitted additives are designated below, depending upon whether they are assigned the label *List 1* or *List 2*.

**List 1**            An aggregate limit of 15% for cigarettes, RYO or cigars, and 30% for pipe tobacco applied to all permitted additives in this category.

**List 2**            An aggregate limit of 0.15% for cigarettes, RYO or cigars, and 0.5% for pipe tobacco applies to all permitted additives in this category.

(For ease of reference the two lists are combined into one, with an indication of the appropriate list after each named additive - 1 or 2, referring to lists 1 and 2 respectively.)

The term *quantum satis* is used in the case of solvents for the application of additives or tobacco processing agents which may be used in sufficient quantities to perform their function, but leave negligible residues.

Inclusion limits for new entries and adhesives to cigarette paper sideseams and to cigar seams, arising from the Voluntary Agreement<sup>5</sup>, have been rounded with any below 0.0001% being quoted at that level and others above 0.0001% being rounded up to the nearest 0.001% or 0.01% as appropriate. Where an additive has not been considered for use in any particular product, this is denoted by '-' under the appropriate heading.

### **References**

1.     Independent Scientific Committee on Smoking and Health. Second Report, London: HM Stationery Office, 1979.
2.     Independent Scientific Committee on Smoking and Health. Fourth Report, London: HM Stationery Office, 1988.
3.     Permitted Additives to Tobacco Products in the United Kingdom. Department of Health, London. January 1995.
4.     Permitted Additives to Tobacco Products in the United Kingdom. Department of Health, London. September 1998

5. Voluntary Agreement on the Approval and Use of Additives in Tobacco Products in the UK. March, 1997.

\* Paper is defined as sheet manufactured from cellulose derived from wood, flax, hemp, jute, esparto, ramie and other vegetable fibres.

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Acacia gum <sup>1</sup>	<i>Acacia senegal</i> Gum Arabic	1.0	1.0	5.0
Acetal <sup>2</sup>	Acetaldehyde diethyl acetal Diethyl acetal	0.001	0.001	0.001
Acetanisoole <sup>2</sup>	Para-Methoxyacetophenone para-Acetyl anisoole	0.15	0.15	0.5
Acetic acid and/or its potassium and sodium salts <sup>1</sup>	Ethanoic acid	2.0	2.0	2.0
Acetoin <sup>2</sup>	3-Hydroxybutanone Acetyl methyl carbinol	0.15	0.15	0.5
Acetone		-	<i>Quantum satis</i>	-
Acetophenone <sup>2</sup>	Methyl phenyl ketone Acetyl benzene	0.15	0.15	0.5
6-Acetoxydihydrotheaspirane <sup>2</sup>	Spiranol acetate 6-Hydroxydihydrotheaspirane Acetate	0.001	-	0.001
Acetyl methyl cellulose <sup>1</sup>	Acetylated methyl cellulose	5.0	5.0	5.0
2-Acetyl pyrazine <sup>2</sup>	Methyl pyrazinyl ketone	0.001	-	0.001
2-Acetyl pyridine <sup>2</sup>	Methyl-2-pyridyl ketone	-	-	0.0001
3-Acetyl pyridine <sup>2</sup>	Methyl-3-pyridyl ketone	0.001	-	0.001
Alga resinoid <sup>2</sup>	<i>Phycenol scenedesmus</i>	-	-	0.5
Allspice extract, oleoresin and oil <sup>2</sup>	<i>Pimenta officinalis</i> <i>Pimenta dioica</i>	0.15	0.15	0.5
Allspice leaf oil <sup>2</sup>	<i>Pimenta officinalis</i> <i>Pimenta dioica</i>	0.15	0.15	0.5
Allura Red <sup>2</sup>	FD & C Red 40 C.I. No. 16035	-	0.1	-
Allyl hexanoate <sup>2</sup>	Allyl caproate	0.002	0.002	0.003

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Almond oil <sup>2</sup>	<i>Amygdalus communis</i> <i>Prunus amygdalus</i>	0.15	0.15	0.5
Aluminium acetate <sup>1</sup>		2.0	-	-
Aluminium carbonate <sup>1</sup>		2.0	-	-
Aluminium citrate <sup>1</sup>		2.0	-	-
Aluminium lactate <sup>1</sup>		2.0	-	-
Aluminium oxide <sup>1</sup>		2.0	-	-
Aluminium phosphate <sup>1</sup>		2.0	-	-
Aluminium tartrate <sup>1</sup>		2.0	-	-
Aluminium trihydroxide <sup>1</sup>	Aluminium hydroxide	2.0	-	-
Aluminosilicates <sup>1</sup>	Natural or synthetic containing cations of Al, Ca, Fe, Mg, K and Na	5.0	-	-
Amber oil <sup>2</sup>	<i>Pinus succinifera</i>	0.15	0.15	0.5
Ambergris extract <sup>2</sup>	<i>Physeter macrocephalus</i>	0.15	0.15	0.5
Ambrette seed oil and absolute <sup>2</sup>	<i>Hibiscus abelmoschus</i>	0.15	0.15	0.5
Ambrox <sup>2</sup>		0.001	-	0.001
Ammonium acetate <sup>1</sup>		2.0	-	-
Ammonium carbonate <sup>1</sup>		4.0	4.0	5.0
Ammonium chloride <sup>1</sup>		2.0	-	-
Ammonium citrate <sup>1</sup>		2.0	-	-
Ammonium dihydrogen phosphate <sup>1</sup>	Ammonium phosphate monobasic	2.0	-	-
Ammonium hydroxide <sup>1</sup>		2.0	-	-
Ammonium lactate <sup>1</sup>		2.0	-	-
Ammonium sulphate <sup>1</sup>		4.0	4.0	5.0
Ammonium tartrate <sup>1</sup>		2.0	-	-
†Amyl acetate <sup>2</sup>	Pentyl acetate	0.15	0.15	0.5
Amyl alcohol <sup>2</sup>	1-Pentanol, Pentan-1-ol	0.15	0.15	0.5
†Amyl benzoate <sup>2</sup>	Pentyl benzoate	0.15	0.15	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
†Amyl butyrate <sup>2</sup>	Pentyl butyrate	0.15	0.15	0.5
alpha-Amyl cinnamaldehyde <sup>2</sup>	2-Benzylidene heptanal alpha-Pentyl cinnamaldehyde	0.15	0.15	0.5
†Amyl formate <sup>2</sup>	Pentyl formate	0.15	0.15	0.5
†Amyl hexanoate <sup>2</sup>	Amyl caproate Pentyl hexanoate	0.15	0.15	0.5
†Amyl isovalerate <sup>2</sup>	Pentyl isovalerate Pentyl-3-methyl butanoate	0.15	0.15	0.5
†Amyl octanoate <sup>2</sup>	Pentyl octanoate	0.15	0.15	0.5
†Amyl phenylacetate <sup>2</sup>	Pentyl phenylacetate	0.15	0.15	0.5
†Amyl salicylate <sup>2</sup>	Pentyl salicylate	0.15	0.15	0.5
†Amyl valerate <sup>2</sup>	Pentyl valerate	0.15	0.15	0.5
trans-Anethole <sup>2</sup>	1-Methoxy -4-propenylbenzene para-(1-Propenyl)-anisole	0.15	0.15	0.5
Angelica root extract and oil <sup>1</sup>	<i>Angelica</i> spp	0.1	0.1	0.1
Anise and oil <sup>1</sup>	<i>Pimpinella anisum</i>	0.1	0.1	0.1
Anisole <sup>2</sup>	Methyl phenyl ether	0.001	0.001	0.001
para-Anisyl acetate <sup>2</sup>	para-Methoxybenzyl acetate	0.15	0.15	0.5
para-Anisyl alcohol <sup>2</sup>	para-Methoxybenzyl alcohol	0.0001	-	0.0001
Arachis oil <sup>1</sup>	<i>Arachis hypogaea</i> Groundnut oil	0.5	0.5	4.0
Ascorbic acid <sup>2</sup>	Vitamin C	0.001	-	0.001
Azorubin <sup>2</sup>	Carmoisine CI.No 14720	0.1	-	-
Balsam oil <sup>2</sup>	<i>Myroxylon pereirae</i> Peru balsam	0.15	0.15	0.5
Bay leaf, oil and sweet oil <sup>2</sup>	<i>Pimenta acris</i> <i>Pimenta racemosa</i> <i>Lauris noblis</i>	0.15	0.15	0.5
Beech tar extract <sup>2</sup>	<i>Fagus</i> spp	0.0001	-	0.001
Bentonite <sup>1</sup>		5.0	5.0	5.0
Beeswax Absolute <sup>2</sup>	<i>Apis mellifera</i>	0.0001	-	-

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Benzaldehyde <sup>2</sup>		0.15	0.15	0.5
Benzoic acid and/or its potassium and sodium salts <sup>1</sup>	Benzene carboxylic acid	0.5	0.5	1.0
Benzoin <sup>2</sup>	2-Hydroxy -2-phenylacetophenone	0.003	0.003	0.01
Benzoin resinoid <sup>1</sup>	<i>Styrax benzoin</i> <i>Styrax paralleloneurus</i> <i>Styrax tonkinensis</i> Gum benzoin	0.1	0.1	0.1
Benzyl acetate <sup>2</sup>		0.15	0.15	0.5
Benzyl alcohol <sup>2</sup>	Phenyl carbinol	0.15	0.15	0.5
Benzyl benzoate <sup>2</sup>	Benzyl benzene carboxylate	0.15	0.15	0.5
Benzyl butyrate <sup>2</sup>	Benzyl butanoate	0.15	0.15	0.5
Benzyl cinnamate <sup>2</sup>	Benzyl beta-phenylacrylate	0.15	0.15	0.5
Benzyl formate <sup>2</sup>		0.15	0.15	0.5
Benzyl isobutyrate <sup>2</sup>		0.15	0.15	0.5
Benzyl phenylacetate <sup>2</sup>		0.15	0.15	0.5
Benzyl propionate <sup>2</sup>	Benzyl propanoate	0.15	0.15	0.5
Bergamot oil <sup>2</sup>	<i>Citrus aurantium</i> <i>Citrus aurantium var bergamia</i>	0.15	0.15	0.5
Boric acid and/or its potassium or sodium salts <sup>1</sup>		0.1	0.1	0.1
Bornyl acetate <sup>2</sup>	Borneol acetate Born-2-yl acetate[IR, 2S]	0.15	0.15	0.5
**Brilliant Black BN <sup>1</sup>	C.I. No 28440	0.4	-	-
Brilliant Blue FCF <sup>2</sup>	C.I. No 42090	0.003	-	-
Butyl acetate <sup>2</sup>	Butyl ethanoate	0.15	0.15	0.5
Butyl butyrate <sup>2</sup>	Butyl butanoate	0.15	0.15	0.5
1,3,-Butylene glycol <sup>1</sup>	Butane-1, 3-diol	3.0	3.0	6.0
Butyl phenyl acetate <sup>2</sup>	Butyl-alpha-toluate	0.15	0.15	0.5
para-tert Butyl pyridine <sup>2</sup>	4-[1,1-Dimethyl-ethyl] pyridine	0.0001	-	0.0001
Butyric acid <sup>2</sup>	Butanoic acid	0.15	0.15	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Cadinenes single or mixed isomers <sup>2</sup>		0.15	0.15	0.5
Cajeput oil <sup>2</sup>	<i>Melaleuca leucadendron</i>	0.15	0.15	0.5
Calcium acetate <sup>1</sup>		2.0	-	-
Calcium carbonate <sup>1</sup>		5.0	5.0	5.0
Calcium chloride <sup>1</sup>		5.0	5.0	5.0
Calcium citrate <sup>1</sup>		2.0	-	-
Calcium hydroxide <sup>1</sup>		2.0	-	-
Calcium lactate <sup>1</sup>		2.0	-	-
Calcium phosphate <sup>1</sup> (mono, di or tri-)		2.0	-	-
Calcium tartrate <sup>1</sup>		2.0	-	-
Camphene <sup>2</sup>	2,2-Dimethyl-3-methylene norbornane	-	-	0.001
d-Camphor <sup>2</sup>	Bornan-2-one	0.15	0.15	0.5
Camphor oil <sup>2</sup> (safrole free)	<i>Cinnamomum camphora</i>	0.15	0.15	0.5
Caramel <sup>1</sup> obtained wholly by heating a sugar solution with or without a small amount of acid, alkali or alkali carbonate		3.0	3.0	4.0
Caraway oil <sup>2</sup>	<i>Carum carvi</i>	0.15	0.15	0.5
Carbon dioxide		<i>Quantum satis</i>		-
Carboxy methyl cellulose and its sodium salt <sup>1</sup>		5.0	5.0	5.0
Cardamon oleoresin, extract, oil, seed oil and powder <sup>2</sup>	<i>Elettaria cardamomum</i>	0.15	0.15	0.5
Carob bean extract <sup>1</sup>	<i>Ceratonia siliqua</i>	0.5	0.5	1.0
Carrot seed oil <sup>2</sup>	<i>Daucus carota</i>	0.15	0.15	0.5
Carvacrol <sup>2</sup>	2-Methyl-5-isopropylphenol 2-Hydroxy -para-cymene	0.001	-	0.001
4-Carvomenthenol <sup>2</sup>	Terpinen-4-ol	-	-	0.001
Carvone <sup>2</sup>	para-Mentha-6,8-dien-2-one	0.15	0.15	0.5
beta-Caryophyllene <sup>2</sup>		0.15	0.15	0.5
Caryophyllene alcohol <sup>2</sup>		0.001	-	0.001

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Caryophyllene oxide <sup>2</sup>	Caryophyllene epoxide	0.002	-	0.002
Cascarilla oil, bark oil and extract <sup>2</sup>	<i>Croton</i> spp <i>Cascara saerada</i>	0.15	0.15	0.5
Cassia buds, bark oil and extract <sup>1</sup>	<i>Cinnamomum aromaticum</i>	0.3	0.3	0.3
Cassia extract <sup>1</sup>	<i>Cassia fistula</i>	0.5	-	0.5
Castor oil <sup>2</sup>	<i>Ricinus communis</i>	-	0.01	-
Castoreum extract and absolute <sup>2</sup>	<i>Castor</i> spp	0.15	0.15	0.5
Cedar leaf oil <sup>2</sup>	<i>Thuja occidentalis</i>	0.15	0.15	0.5
Cedarwood oil <sup>2</sup>	<i>Juniperus virginiana</i>	0.15	0.15	0.5
Cedrol <sup>2</sup>	Cedarwood camphor Cedarwood oil alcohol	0.001	-	0.001
Cedryl acetate <sup>2</sup>		0.001	-	0.001
Celery seed extract, solid, oil and oleoresin <sup>1</sup>	<i>Apium graveolens</i>	0.1	0.1	0.1
Cellulose acetate <sup>1</sup> (45-70% hydroxyl groups acetylated)		2.0	5.0	2.0
Cellulose acetate propionate <sup>1</sup>		-	0.2	-
Cellulose-alpha-alkanoylalkanoates <sup>1</sup>		5.0	-	-
Cellulose fibre <sup>1</sup>	Softwood or hardwood pulp	5.0	5.0	6.0
Chamomile flower oil and absolute <sup>2</sup>	<i>Chamaemelum nobile</i>	0.15	0.15	0.5
Chlorophyll <sup>1</sup>		2.0	-	-
Cinnamaldehyde <sup>2</sup>	3-Phenyl-2-propen-1-al	0.15	0.15	0.5
Cinnamic acid <sup>2</sup>	3-Phenylpropenoic acid	0.15	0.15	0.5
Cinnamon leaf, oil, bark oil and extract <sup>1</sup>	<i>Cinnamomum zeylanicum</i>	0.1	0.1	0.1
Cinnamyl acetate <sup>2</sup>	3-Phenylallyl acetate	0.15	0.15	0.5
Cinnamyl alcohol <sup>2</sup>	3-Phenyl-2-propen-1-ol	0.15	0.15	0.5
Cinnamyl butyrate <sup>2</sup>		0.15	0.15	0.5
Cinnamyl cinnamate <sup>2</sup>	3-Phenylallyl cinnamate	0.15	0.15	0.5
Cinnamyl isobutyrate <sup>2</sup>		0.15	0.15	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Cinnamyl isovalerate <sup>2</sup>	Cinnamyl-3-methyl butanone	0.15	0.15	0.5
Citral <sup>2</sup>	3,7-Dimethyl-2,6-octadienal	0.15	0.15	0.5
Citric acid and its tripotassium and tri-sodium salts <sup>1</sup>		4.0	4.0	4.0
Citronella oil <sup>2</sup>	<i>Cymbopogon nardus</i>	0.15	0.15	0.5
Citronella <sup>2</sup>	3,7-Dimethyl-6-octenal	0.15	0.15	0.5
Citronellic acid <sup>2</sup>	3,7-Dimethyl-6-octenoic acid	0.0001	-	-
dl-Citronello <sup>2</sup>	3,7-Dimethyl-6-octen-1-ol	0.15	0.15	0.5
Citronellyl acetate <sup>2</sup>	3,7-Dimethyl-6-octen-1-yl-acetate	0.15	0.15	0.5
Citronellyl butyrate <sup>2</sup>	3,7-Dimethyl-6-octen-1-yl butyrate	0.15	0.15	0.5
Citronellyl formate <sup>2</sup>	3,7-Dimethyl-6-octen-1-yl formate	0.15	0.15	0.5
Citronellyl isobutyrate <sup>2</sup>	3,7-Dimethyl-6-octen-1-yl isobutyrate	0.15	0.15	0.5
Citronellyl phenylacetate <sup>2</sup>	3,7-Dimethyl-6-octen-1-yl phenyl acetate	0.15	0.15	0.5
Citronellyl propionate <sup>2</sup>	3,7-Dimethyl-6-octen-1-yl propionate	0.15	0.15	0.5
Civet absolute <sup>2</sup>	<i>Viverra civetta</i> <i>Viverra zibetha</i>	0.0001	-	0.0001
Clary sage oil and absolute <sup>2</sup>	<i>Salvia sclarea</i>	0.15	0.15	0.5
Clove stem oil, leaf oil, bud oil and extract <sup>1</sup>	<i>Eugenia caryophyllata</i>	0.3	0.3	0.3
Cocoa, cocoa shells and extract, cocoa distillate and butter <sup>1</sup>	<i>Theobroma cacao</i>	5.0	5.0	5.0
Coffee extract, concentrate and powder <sup>1</sup>	<i>Coffea</i> spp	1.0	1.0	4.0
Cognac oil, white and green <sup>2</sup>	Wine yeast oil	0.15	0.15	0.5
Coriander extract and oil <sup>1</sup>	<i>Coriandrum sativum</i>	0.1	0.1	0.1
Cubeb oil <sup>2</sup>	<i>Piper cubeba</i>	0.15	0.15	0.5
Cumin, cumin seed oil and absolute <sup>1</sup>	<i>Cuminum cyminum</i>	0.1	0.1	0.1
Cuminaldehyde <sup>2</sup>	para-Isopropyl benzaldehyde	0.15	0.15	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Cyclamen aldehyde <sup>2</sup>	alpha-Methyl-para-isopropyl-phenyl propionaldehyde 3-para-Cumenyl-2-methyl-propionaldehyde	0.0001	0.0001	0.0001
para-Cymene <sup>2</sup>	Cymol	-	-	0.001
Cypress oil <sup>2</sup>	<i>Cupressus sempervirens</i> var <i>stricta</i>	0.001	-	0.001
beta-Damascenone <sup>2</sup>		0.003	-	0.003
beta-Damascone <sup>2</sup>		0.001	-	0.001
Davana oil <sup>2</sup>	<i>Artemisia pallens</i>	0.001	-	0.001
delta-Decalactone <sup>2</sup>	Decanolide Decan-5-olide	0.002	0.002	0.004
gamma-Decalactone <sup>2</sup>	Decan-4-olide	0.001	0.001	0.002
Decanal <sup>2</sup>	Aldehyde C-10 Capraldehyde	0.15	0.15	0.5
Decanoic acid <sup>2</sup>	Capric acid	0.001	-	0.001
Dextrin <sup>1</sup>	Starch gum	4.0	4.0	4.0
Diacetyl <sup>2</sup>	Biacetyl	0.002	-	0.001
Diammonium hydrogen phosphate <sup>1</sup>	Ammonium phosphate, di basic Diammonium phosphate	4.0	4.0	5.0
Diatomaceous earth <sup>1</sup>	Kieselguhr	5.0	5.0	5.0
Dibenzyl ether <sup>2</sup>		0.15	0.15	0.5
alpha-2,3-Diethylpyrazine <sup>2</sup>		0.001	-	0.001
2,3-Diethyl-5-methyl pyrazine <sup>2</sup>		0.0001	-	0.0001
Diethyl sebacate <sup>2</sup>		0.15	0.15	0.5
Dihydroactinidiolide <sup>2</sup>		-	-	0.001
Dihydrocarvyl acetate <sup>2</sup>		-	-	0.001
3,4-Dihydrocoumarin <sup>2</sup>	1,2-Benzodihydropyrone	0.15	0.15	0.5
Dill seed oil and extract <sup>2</sup>	<i>Anethum graveolens</i>	0.15	0.15	0.5
para-Dimethoxybenzene <sup>2</sup>	Dimethylhydroquinone 1,4-Dimethoxybenzene	0.15	0.15	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
2,5-Dimethyldihydrofuranolone <sup>2</sup>	Furaneol 4-Hydroxy -2,5-dimethyl 3-[2H] furanone	0.003	-	0.001
alpha-alpha-Dimethylphenethyl acetate <sup>2</sup>	Benzyl dimethyl carbonyl acetate 1,1-Dimethyl-2-phenylethyl acetate	0.15	0.15	0.5
alpha-alpha-Dimethylphenethyl butyrate <sup>2</sup>	Benzyl dimethyl carbonyl butyrate 1,1-Dimethyl-2-phenylethyl butyrate	0.15	0.15	0.5
2,6-Dimethoxyphenol <sup>2</sup>	Syringol	0.001	0.001	0.001
3,4-Dimethyl-1,2-cyclopentadione <sup>2</sup>	3,4-Dimethyl cyclopentenolone	0.001	-	0.001
para-alpha-Dimethyl benzyl alcohol <sup>2</sup>	Methyl-para-tolyl carbinol	0.001	-	0.001
3,4-Dimethyl phenol <sup>2</sup>	1-Hydroxy -3,4-dimethyl benzene	-	-	0.001
1,1-Dimethyl-2-phenylethyl isobutyrate <sup>2</sup>		0.15	0.15	0.5
2,5-Dimethyl pyrazine <sup>2</sup>		0.001	-	0.001
2,6-Dimethyl pyrazine <sup>2</sup>		0.001	-	0.001
3,5-Dimethyl pyridine <sup>2</sup>		0.0001	-	0.0001
para-alpha Dimethyl styrene <sup>2</sup>	1-Methyl-4-isopropenylbenzene para-Isopropenyl toluene	-	-	0.001
Diphenyl ether <sup>2</sup>	Diphenyl oxide	0.001	0.001	0.001
Dipotassium succinate <sup>2</sup>		2.0	-	-
delta-Dodecalactone <sup>2</sup>	Dodecan-5-olide	0.004	0.004	0.008
gamma-Dodecalactone <sup>2</sup>	Dodecan-4-olide	0.001	0.001	0.001
beta-Elemene <sup>2</sup>		0.15	0.15	0.5
beta-Elemol <sup>2</sup>		0.15	0.15	0.5
**Erythrosine <sup>2</sup>	FD & C Red 3 C.I. No 45430	0.04	-	-
Estragole <sup>2</sup>	4-Allylanisole	0.15	0.15	0.5
Ethanol		<i>Quantum Satis</i>		
Ethyl acetate <sup>2</sup>	Acetic ether	0.15	0.15	0.5
Ethyl acrylate <sup>2</sup>	Ethyl propenoate	-	-	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Ethyl benzoate <sup>2</sup>	Ethyl benzenecarboxylate	0.15	0.15	0.5
Ethyl butyrate <sup>2</sup>	Ethyl butanoate	0.15	0.15	0.5
Ethyl cellulose <sup>1</sup>		1.0	5.0	1.0
Ethyl cinnamate <sup>2</sup>	Ethyl phenylacrylate	0.15	0.15	0.5
Ethyl decanoate <sup>2</sup>	Ethyl caprate	0.15	0.15	0.5
2-Ethyl-3,5-dimethyl pyrazine <sup>2</sup>	3-Ethyl-2,6-dimethyl pyrazine	0.001	-	0.001
3-Ethyl-2,5-dimethyl pyrazine <sup>2</sup>		0.001	-	0.001
5-Ethyl-3-hydroxy-4-methyl-2(5H)-furanone <sup>2</sup>		0.0001	-	-
Ethylene vinyl acetate copolymer <sup>1</sup>		1.0	1.0	-
Ethyl formate <sup>2</sup>		0.15	0.15	0.5
4-Ethyl guaiacol <sup>2</sup>	4-Ethyl-2-methoxyphenol	0.15	0.15	0.5
Ethyl heptanoate <sup>2</sup>	Ethyl oenanthatate	0.15	0.15	0.5
Ethyl hexanoate <sup>2</sup>	Ethyl caproate	0.15	0.15	0.5
Ethyl hydroxy ethyl cellulose <sup>1</sup>		-	5.0	-
3-Ethyl-2-hydroxy -2-cyclopentene-1-one <sup>2</sup>	Ethyl-cyclopentenolone	0.005	-	0.005
Ethyl isovalerate <sup>2</sup>	Ethyl isovalerianate	0.001	-	0.001
Ethyl lactate <sup>2</sup>	Ethyl alpha-hydroxypropionate	0.007	0.007	0.007
Ethyl laurate <sup>2</sup>	Ethyl dodecanoate	0.15	0.15	0.5
Ethyl maltol <sup>2</sup>	2-Ethyl-3-hydroxy -4H-pyran-4-one	0.0001	-	0.01
Ethyl-2-methyl butyrate <sup>2</sup>	Ethyl-2-methyl butanoate	0.002	0.001	0.001
3-Ethyl-2-methylpyrazine <sup>2</sup>	2-Methyl-3-ethyl pyrazine	0.001	-	0.001
Ethyl myristate <sup>2</sup>	Ethyl tetradecanoate	0.15	0.15	0.5
Ethyl nonanoate <sup>2</sup>	Ethyl pelargonate	0.15	0.15	0.5
Ethyl octanoate <sup>2</sup>	Ethyl caprylate	0.15	0.15	0.5
Ethyl palmitate <sup>2</sup>	Ethyl hexadecanoate	0.15	0.15	0.5
para-Ethyl phenol <sup>2</sup>	4-Hydroxy ethylbenzene	0.001	-	0.001

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Ethyl phenyl acetate <sup>2</sup>	alpha-Toluic acid, ethyl ester	0.15	0.15	0.5
Ethyl propionate <sup>2</sup>	Ethyl propanoate	0.15	0.15	0.5
3-Ethyl pyridine <sup>2</sup>		0.001	-	0.001
Ethyl salicylate <sup>2</sup>	Ethyl-2-hydroxybenzoate	0.15	0.15	0.5
Ethyl-10-undecenoate <sup>2</sup>	Undecenoic acid, ethyl ester (10-) Ethyl undec-10-enoate	0.15	0.15	0.5
Ethyl valerate <sup>2</sup>	Ethyl pentanoate	0.15	0.15	0.5
Ethyl vanillin <sup>2</sup>	3-Ethoxy-4-hydroxy-1-benzaldehyde	0.15	0.15	0.5
Eucalypto <sup>2</sup>	Cineole 1,8-Epoxy-para-menthane	-	-	0.001
Eucalyptus oil and absolute <sup>2</sup>	<i>Eucalyptus globulus</i>	0.15	0.15	0.5
Eugenol <sup>2</sup>		0.15	0.15	0.5
Eugenyl methyl ether <sup>2</sup>	4-Allyl veratrole	0.0001	-	0.0001
Farnesol <sup>2</sup>		0.15	0.15	0.5
Fennel and sweet oil <sup>2</sup>	<i>Foeniculum vulgare</i>	0.15	0.15	0.5
Fenugreek extract, resin and absolute <sup>1</sup>	<i>Trigonella foenum-graecum</i>	0.1	0.1	0.1
Formic acid <sup>2</sup>	Methanoic acid	0.15	0.15	0.5
d-Fructose <sup>1</sup>		10.0	10.0	15.0
Fruits, fresh, dried extracts and esters thereof - apple, apricot, banana, blackberry, blackcurrant, cherry, date, fig, grape, peach, pear, pineapple, plum, prune, raisin, raspberry, strawberry. <sup>1</sup>		4.0	4.0	4.0
2-Furan methane thiolformate <sup>2</sup>	Furfuryl thiolformate	-	-	0.001
Furfural alcohol <sup>2</sup>	Furfuryl alcohol	0.01	-	0.01
Furfuryl methyl sulphide <sup>2</sup>		-	-	0.001
Gentian root extract <sup>2</sup>	<i>Gentiana lutea</i>	0.15	0.15	0.5
Geraniol <sup>2</sup>	trans-3,7-Dimethyl-2,6-octadien-1-ol	0.15	0.15	0.5
Geranium rose oil <sup>2</sup>	<i>Pelargonium graveolens</i> Geranium oil	0.15	0.15	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Geranyl acetate <sup>2</sup>	Geranyl ethanoate	0.15	0.15	0.5
Geranyl acetone <sup>2</sup>	6,10-Dimethyl-5,9-undecadien-2-one	0.001	-	0.001
Geranyl butyrate <sup>2</sup>	Geraniol butanone	0.15	0.15	0.5
Geranyl formate <sup>2</sup>	Geranyl methanoate	0.15	0.15	0.5
Geranyl isobutyrate <sup>2</sup>	Geraniol isobutanone	0.15	0.15	0.5
Geranyl phenyl acetate <sup>2</sup>	Geranyl alpha-toluate	0.15	0.15	0.5
Geranyl propionate <sup>2</sup>		0.15	0.15	0.5
Ginger oil <sup>2</sup>	<i>Zingiber officinale</i>	0.15	0.15	0.5
d-Glucose <sup>1</sup>		10.0	10.0	15.0
Glycerol <sup>1</sup>	Glycerine	10.0	10.0	15.0
Glycerol-1,2-diacetate <sup>2</sup>	Diacetin	0.15	0.15	0.5
Glyceryl triacetate <sup>1</sup>	Triacetin	3.0	3.0	6.0
Glyoxal <sup>1</sup> (Tobacco sheet or paper - no free residue)		1.0	1.0	1.5
Guaiac gum extract <sup>2</sup>	<i>Guaiacum</i> spp	-	-	0.001
Guaiac wood oil <sup>2</sup>	<i>Guaiacum</i> spp	0.15	0.15	0.5
Guaiacol <sup>2</sup>	2-Methoxyphenol	0.15	0.15	0.5
Guaiol acetate <sup>2</sup>	Guaic acetate Guaiyl acetate	0.15	0.15	0.5
Guar gum <sup>1</sup>	<i>Cyamopsis tetragonoloba</i> <i>Cyamopsis psoraloides</i>	2.0	2.0	2.0
Gum tragacanth <sup>1</sup>	<i>Astragalus gummifer</i>	1.0	1.0	1.0
2,4-Heptadienal <sup>2</sup>		0.001	-	0.001
gamma-Heptalactone <sup>2</sup>	Heptan-4-olide	0.15	0.15	0.5
Heptanoic acid <sup>2</sup>	Oenanthic acid	0.002	-	0.002
2-Heptanone <sup>2</sup>	Methyl amyl ketone	0.003	0.003	0.003
4-Heptenal <sup>2</sup>	n-Propylidene-butyraldehyde	0.0001	-	0.0001
omega-6-Hexadecenlactone <sup>2</sup>	Ambrettolide	0.0001	-	0.0001
gamma-Hexalactone <sup>2</sup>	Hexan-4-olide	0.001	-	0.003

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
3,4-Hexanedione <sup>2</sup>	Hexan-3,4-dione	0.0001	-	0.0001
Hexanoic acid <sup>2</sup>	Caproic acid	0.15	0.15	0.5
cis-3-Hexen-1-ol <sup>2</sup>	Leaf alcohol cis-3-Hexenol	0.002	-	0.002
Hexen-2-al <sup>2</sup>	cis- and trans-Hex-2-enal	0.002	-	0.001
Hex-2-enyl acetate <sup>2</sup>	2-Hexenyl ethanoate	0.15	0.15	0.5
3-Hexenyl acetate <sup>2</sup>	cis-3-Hexenyl ethanoate cis-Hex-3-enyl acetate	0.001	-	0.001
Hexyl acetate <sup>2</sup>	Hexyl ethanoate	0.15	0.15	0.5
Hexyl alcohol <sup>2</sup>	1-Hexanol	0.006	-	0.006
Hexyl phenyl acetate <sup>2</sup>	Phenyl acetic acid, hexyl ester	0.001	-	0.001
Honey <sup>1</sup>	<i>Apis mellifica</i> / <i>Apis mellifera</i>	4.0	4.0	4.0
Humic acid <sup>1</sup>		1.5	1.0	-
Hydrochloric acid <sup>1</sup> (for tobacco sheet or paper - no free residues)		0.15	0.15	0.15
4-Hydroxy benzoic acid and/or its ethyl, propyl esters and their sodium salts <sup>1</sup>		0.2	0.2	0.3
4-Hydroxybutanoic acid lactone <sup>2</sup>	1,4-Butyrolactone gamma-Butyrolactone	0.15	0.15	0.5
Hydroxycitronellal <sup>2</sup>	7-Hydroxy -3,7-dimethyloctanal	0.15	0.15	0.5
Hydroxycitronello <sup>2</sup>	3,7-Dimethyl octane-1,7-diol	0.15	0.15	0.5
2-Hydroxyisophorone <sup>2</sup>	2-Hydroxy -3,5,5-trimethyl-2-cyclohexenone	0.003	-	0.003
4(p-Hydroxyphenol)-2-butanone <sup>2</sup>	para-Hydroxybenzyl acetate 4(4-hydroxyphenyl)butanone	0.15	0.15	0.5
Hydroxypropyl cellulose <sup>1</sup>		1.5	1.5	1.5
Immortelle oil and absolute <sup>2</sup>	<i>Helichrysum angustifolium</i>	0.0001	-	0.0001
** Indigotine <sup>2</sup>	FD & C Blue No.2 C.I. No 73015	0.03	0.01	-
Indole <sup>2</sup>	2,3-Benzopyrrole	0.0001	0.0001	0.001
alpha-Ionone <sup>2</sup>	alpha-Irisone	0.15	0.15	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
beta-Ionone <sup>2</sup>	beta-Irisone	0.15	0.15	0.5
Iron oxides <sup>1</sup>		2.0	2.0	2.0
alpha-Ironone <sup>2</sup>	6-Methylionone	0.15	0.15	0.5
Isoamyl alcohol <sup>2</sup>	Isopentyl alcohol	0.15	0.15	0.5
Isoamyl cinnamate <sup>2</sup>	Isoamyl isocinnamate	0.0001	-	-
Isobornyl acetate <sup>2</sup>	(1R, 2R)-Born-2-yl-acetate	0.15	0.15	0.5
Isobutyl acetate <sup>2</sup>	2-Methyl-1-propyl acetate	0.0001	-	0.0001
Isobutyl alcohol <sup>2</sup>	Isobutanol 2-Methyl-propan-1-ol	0.15	0.15	0.5
Isobutyl butyrate <sup>2</sup>		0.0001	-	0.0001
Isobutyl cinnamate <sup>2</sup>	Isobutyl isocinnamate	0.0001	-	0.0001
2-Isobutyl-3-methoxypyrazine <sup>2</sup>		0.0001	-	-
Isobutyl phenethyl alcohol <sup>2</sup>	Isobutyl benzyl carbinol 4-Methyl-1-phenyl-2-pentanol	0.0001	0.0001	0.0001
Isobutylphenyl acetate <sup>2</sup>	Isobutyl(iso)phenyl acetate	0.15	0.15	0.5
Isobutyraldehyde <sup>2</sup>	2-Methyl propanal	0.0001	-	0.0001
Isobutyric acid <sup>2</sup>	2-Methyl propionic acid	0.0001	-	-
Isoeugenol <sup>2</sup>	4-Prop-1-enylguaiacol	0.15	0.15	0.5
Isoeugenyl methyl ether <sup>2</sup>	4-Propenyl veratrole	0.15	0.15	0.5
Isopentane		<i>Quantum satis</i>		-
Isophorone <sup>2</sup>	Isoacetophorone	0.001	-	0.001
4-Keto dihydroisophorone <sup>2</sup>	3,5,5-(or 2,6,6-)Trimethyl -1,4-cyclohexanedione	0.001	-	0.001
4-Keto isophorone <sup>2</sup>	3,5,5-(or 2,6,6-) Trimethyl-2-cyclohex-2-ene,1,4-dione	0.001	-	0.001
Isopropyl alcohol	2-Propanol	<i>Quantum satis</i>		
Isopropyl myristate <sup>2</sup>	Isopropyl tetradecanoate	0.001	0.001	0.001
Isopulegol <sup>2</sup>	para-Menth-8-en-3-ol	0.15	0.15	0.5
Isovaleric acid <sup>2</sup>	3-Methylbutanoic acid	0.15	0.15	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Jasmine absolute concrete and oil <sup>2</sup>	<i>Jasminum grandiflorum</i> <i>Jasminum officinale</i>	0.15	0.15	0.5
Juniper berry oil <sup>2</sup>	<i>Juniperus communis</i>	0.02	0.02	0.02
Labdanum absolute, oleoresin and oil <sup>2</sup>	<i>Cistus</i> spp	0.15	0.15	0.5
Lactic acid and/or its potassium and sodium salts <sup>1</sup>	2-Hydroxypropanoic acid	2.0	2.0	4.0
Lauric acid <sup>2</sup>	Dodecanoic acid	0.01	-	0.01
Lavender absolute or oil <sup>2</sup>	<i>Lavandula</i> spp	0.15	0.15	0.5
Lecithin <sup>1</sup>	Phosphatidyl choline	0.25	0.25	0.25
Lemon oil and extract <sup>2</sup>	<i>Citrus limonum</i> / <i>Citrus medica</i> <i>var. limonum</i>	0.15	0.15	0.5
Lemongrass oil <sup>2</sup>	<i>Cymbopogon citratus flexuosus</i>	0.15	0.15	0.5
Licorice root, fluid, extract and powder <sup>1</sup>	<i>Glycyrrhiza glabra</i>	4.0	4.0	4.0
Lime oil <sup>2</sup> (terpeneless)	<i>Citrus aurantifolia</i>	0.001	-	0.001
d-Limonene <sup>2</sup>	d-para-Mentha-1,8-diene	0.0001	-	0.001
Linaloe wood oil <sup>2</sup>	<i>Bursera</i> spp	0.15	0.15	0.5
Linalool <sup>2</sup>	Linalyl alcohol Linalol	0.15	0.15	0.5
Linalool oxide <sup>2</sup>	Linalyl oxide	0.001	-	0.001
Linalyl acetate <sup>2</sup>	Linalool acetate	0.15	0.15	0.5
Linalyl butyrate <sup>2</sup>	3,7-Dimethyl-1,6-octadien-3-yl butyrate	0.001	-	0.001
Linalyl formate <sup>2</sup>	Linalool formate	0.15	0.15	0.5
Linalyl isobutyrate <sup>2</sup>	3,7-Dimethyl-octa-1,6-dien-3-yl- isobutyrate	0.15	0.15	0.5
Liquid Paraffin BP <sup>1</sup>	Mineral oil, white	0.5	0.5	4.0
Locust bean gum <sup>1</sup>	<i>Ceratonia siliqua</i>	1.0	1.0	4.0
Longosa absolute and oil <sup>2</sup>	<i>Hedychium flavum</i>	-	-	0.5
Lovage oil and extract <sup>1</sup>	<i>Levisticum officinale</i>	0.1	0.1	0.1

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Mace powder, extract and oil <sup>1</sup>	<i>Myristica fragrans</i>	0.1	0.1	0.1
Magnesium acetate <sup>1</sup>		2.0	-	-
Magnesium carbonate <sup>1</sup>		2.0	-	-
Magnesium chloride <sup>1</sup>		5.0	5.0	5.0
Magnesium citrate <sup>1</sup>		2.0	-	-
Magnesium hydroxide <sup>1</sup>		2.0	-	-
Magnesium lactate <sup>1</sup>		2.0	-	-
Magnesium oxide <sup>1</sup>		5.0	1.0	5.0
Magnesium phosphate <sup>1</sup>		2.0	-	-
Magnesium tartrate <sup>1</sup>		2.0	-	-
Malt and malt extract <sup>1</sup>	<i>Hordeum</i> spp Malt syrup	2.0	2.0	4.0
Maltol <sup>2</sup>	3-Hydroxy-2-methyl-4-pyrone	0.15	0.15	0.5
Maple syrup, extract and concentrate <sup>1</sup>	<i>Acer saccharum</i>	10.0	10.0	15.0
Mate distillate <sup>2</sup>		0.0001	-	-
para-Mentha-1,8-dien-7-ol <sup>2</sup>	Perillyl alcohol	0.15	0.15	0.5
Menthol <sup>1</sup>	2-Isopropyl-5-methyl-cyclohexanol	2.0	2.0	2.0
Menthyl acetate <sup>2</sup>	Menthol acetate para-Menth-3-yl-acetate	0.15	0.15	0.5
Menthyl isovalerate <sup>2</sup>	para-Menth-3-yl-isovalerate	0.15	0.15	0.5
Mercaptomethanone <sup>2</sup>	para-Mentha-8-thiol-3-one	-	-	0.001
para-Methoxy benzaldehyde <sup>2</sup>	para-Anisaldehyde	0.15	0.15	0.5
ortho-Methoxy cinnamaldehyde <sup>2</sup>	2-Methoxy cinnamaldehyde	0.15	0.15	0.5
para-Methoxy cinnamaldehyde <sup>2</sup>	4-Methoxy cinnamaldehyde	0.15	0.15	0.5
2-(or 5- or 6-) Methoxy-3-methyl pyrazine <sup>2</sup>		0.0001	-	0.0001
2-Methoxy-4-methylphenol <sup>2</sup>	4-Methyl guaiacol	0.0001	-	0.0001
2-Methoxy-4-vinylphenol <sup>2</sup>	4-Hydroxy-3-methoxystyrene 4-Vinyl guaiacol	0.0001	-	0.001

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
1-(para-Methoxyphenyl)-2-propanone <sup>2</sup>	Anisyl methyl ketone 4-Methoxyphenol acetone	0.15	0.15	0.5
Methyl acetate <sup>2</sup>	Methyl ethanoate	0.001	-	0.001
4-Methyl acetophenone <sup>2</sup>	Methyl para-tolyl ketone	0.15	0.15	0.5
Methyl anisate <sup>2</sup>	Methyl-4-methoxy benzoate Methyl para-anisate	0.001	0.001	0.001
para-Methyl anisole <sup>2</sup>	ortho-Cresyl-para-methyl ether 4-Methoxytoluene	0.15	0.15	0.5
Methyl benzoate <sup>2</sup>	Methyl benzenecarboxylate	0.15	0.15	0.5
alpha-Methyl benzyl acetate <sup>2</sup>	1-Phenyl ethyl acetate	0.15	0.15	0.5
alpha-Methyl benzyl alcohol <sup>2</sup>	alpha-Phenyl ethyl alcohol Styralyl alcohol	0.15	0.15	0.5
2-Methyl butyraldehyde <sup>2</sup>	2-Methyl butanal	0.15	0.15	0.5
3-Methyl butyraldehyde <sup>2</sup>	3-Methyl butanal Isovaleraldehyde	0.15	0.15	0.5
2-Methyl butyric acid <sup>2</sup>	Methyl ethyl acetic acid	0.0001	-	0.0001
Methyl cellulose <sup>1</sup>		5.0	5.0	3.0
Methyl cinnamate <sup>2</sup>	Methyl-3-phenylpropenoate	0.15	0.15	0.5
Methyl cyclopentenolone <sup>2</sup>	3-Methyl-2-cyclopenten-2-ol-1-one 2-Hydroxy-3-methyl cyclopent-2-en-1-one	0.005	0.005	0.03
Methyl ethyl ketone <sup>2</sup>	2-Butanone	0.15	0.15	0.5
5-Methyl furfural <sup>2</sup>	5-Methyl-2-furaldehyde	0.01	-	0.01
6-Methyl-3,5-heptadienone <sup>2</sup>		0.001	-	0.001
6-Methyl-hept-5-en-2-one <sup>2</sup>	Methyl heptenone	0.15	0.15	0.5
2-Methyl heptanoic acid <sup>2</sup>	Methyl amyl acetic acid	0.0001	0.0001	0.0001
2-Methyl hexanoic acid <sup>2</sup>	2-Methyl caproic acid	0.002	-	0.002
Methyl hydroxy ethyl cellulose <sup>1</sup>		-	2.0	-
Methyl hydroxy propyl cellulose <sup>1</sup>	2-Hydroxypropyl methyl cellulose	0.1	5.0	-
Methyl isovalerate <sup>2</sup>	Methyl isovalerianate	0.15	0.15	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Methyl linoleate <sup>2</sup>	Methyl-9,12-octadecadienoate	0.001	-	0.001
Methyl linolenate <sup>2</sup>	Methyl-9,12,15-octadecatrienoate	0.001	-	0.001
Methyl mercaptan <sup>2</sup>	Methanethiol	-	-	0.001
2-Methyl-5-(methylthio)furan <sup>2</sup>	5-Methyl thiosilvane	-	-	0.001
Methyl-beta-naphthylketone <sup>2</sup>	2-Acetonaphthone Oranger crystals	-	-	0.002
3-Methyl pentanoic acid <sup>2</sup>	3-Methyl valeric acid	0.001	-	0.001
Methyl phenyl acetate <sup>2</sup>	Methyl-alpha toluate	0.15	0.15	0.5
2-Methyl pyrazine <sup>2</sup>	2-Methyl-1,4-diazine	0.001	-	0.001
5-Methyl quinoxaline <sup>2</sup>		0.0001	-	0.001
Methyl salicylate <sup>2</sup>	Methyl-ortho hydroxybenzoate	0.15	0.15	0.5
Methyl sulphide <sup>2</sup>	Dimethyl sulphide	0.0001	-	0.0001
2-Methyl undecanal <sup>2</sup>	Methyl nonyl acetaldehyde	0.15	0.15	0.5
3-Methyl-1-cyclopentadecanone <sup>2</sup>	Muscone	0.0001	-	0.0001
3-Methyl-2(2-pentenyl)-2-cyclopenten-1-one <sup>2</sup>	cis-Jasmone	0.001	0.001	0.001
Methyl-2-octynoate <sup>2</sup>	Methyl heptine carbonate	-	-	0.001
Methyl-2-pyrrolyl ketone <sup>2</sup>	2-Acetyl pyrrole	0.0001	0.0001	0.0001
2-Methyl-4-phenyl butyraldehyde <sup>2</sup>	2-Methyl-4-phenyl butanal	0.0001	-	0.0001
Mimosa absolute <sup>2</sup>	<i>Acacia decurrens</i> var <i>dealbata</i>	0.15	0.15	0.5
Mint oil, garden mint oil, wild mint oil <sup>2</sup> (partly dementholised)	<i>Mentha viridis</i> <i>Mentha arvensis</i>	0.15	0.15	0.5
Molasses extract and tincture <sup>1</sup>	<i>Saccharum officinarum</i>	10.0	10.0	15.0
Mullein flowers <sup>2</sup>	<i>Verbascum</i> spp	0.15	0.15	0.5
Musk ketone <sup>2</sup>		0.01	0.01	0.03
Musk pod extract <sup>2</sup>	<i>Fiber zibethicus</i> <i>Moschus moschiferus</i>	0.15	0.15	0.5
Myrcene <sup>2</sup>	7-Methyl-3-methylene-1,6-octadiene	-	-	0.001
Myrrh oil, absolute and resinoid <sup>2</sup>	<i>Commiphora</i> spp	0.15	0.15	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
beta-Naphthyl ethyl ether <sup>2</sup>	Nerolin Ethyl-2-naphthyl ether	0.15	0.15	0.5
beta-Naphthyl methyl ether <sup>2</sup>	2-Methoxynaphthalene Methyl-2-naphthyl ether	0.15	0.15	0.5
Nerol <sup>2</sup>	cis -3,7-Dimethyl-2,6-octadien-1-ol	0.15	0.15	0.5
Neroli oil <sup>2</sup>	<i>Citrus aurantium</i>	0.15	0.15	0.5
Nerolidol <sup>2</sup>	3,7,11-Trimethyl-1,6,10- dodecatrien-3-ol	0.15	0.15	0.5
Nitrogen		Quantum satis		-
2,6-Nonadien-1-ol <sup>2</sup>	Cucumber oil	0.001	-	0.001
gamma-Nonalactone <sup>2</sup>	Nonan-4-olide	0.15	0.15	0.5
Nonanal <sup>2</sup>	Nonanaldehyde	0.15	0.15	0.5
Nonanoic acid <sup>2</sup>	Pelargonic acid	0.002	-	0.002
2-Nonenal <sup>2</sup>	2-Nonen-1-ol 3-Hexyl-2-acrolein	0.001	-	0.001
Nutmeg and oil <sup>2</sup>	<i>Myristica fragrans</i>	0.15	0.15	0.5
Oak bark extract <sup>2</sup>	<i>Quercus</i> spp	0.001	-	0.001
Oak moss absolute <sup>2</sup>	<i>Evernia prunastri</i>	0.001	-	0.001
delta-Octalactone <sup>2</sup>	Octan-5-olide	0.001	-	0.001
gamma-Octalactone <sup>2</sup>	Octan-4-olide	0.01	-	0.01
Octanoic acid <sup>2</sup>	Caprylic acid	0.002	-	0.002
1-Octanol <sup>2</sup>	Octyl alcohol	-	-	0.001
2-Octanone <sup>2</sup>	Methyl hexyl ketone	0.001	-	0.001
1-Octen-3-ol <sup>2</sup>	Amyl vinyl carbinol	0.0001	-	0.001
2-Octenal <sup>2</sup>	2-Amyl acrolein	0.0001	-	0.0001
Octyl acetate <sup>2</sup>	2-ethyl-1-hexanol acetate	0.0001	-	-
Olibanum oil, resinoid and absolute <sup>2</sup>	<i>Boswellia cartirii</i>	0.001	0.001	0.001
Olive oil <sup>1</sup>	<i>Olea europea</i>	0.5	0.5	4.0
Opopanax oil and gum <sup>2</sup>	<i>Opopanax chironium</i> <i>Commiphora erythraea</i>	0.15	0.15	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Orange leaf absolute and blossoms water <sup>2</sup>	<i>Citrus aurantium</i>	0.001	-	0.001
Orange oil and extract <sup>2</sup> (whether or not terpeneless)	<i>Citrus aurantium</i>	0.15	0.15	0.5
Orange peel oil and extract, bitter and sweet <sup>2</sup> (whether or not terpeneless)	<i>Citrus sinensis</i> <i>Citrus bigaradia</i> <i>Citrus aurantium</i>	0.15	0.15	0.5
Origanum extract <sup>2</sup>	<i>Origanum vulgare</i>	0.0001	-	-
Orris root, concrete, oil and extract <sup>2</sup>	<i>Iris florentina</i>	0.15	0.15	0.5
Palmarosa oil <sup>2</sup>	<i>Cymbopogon martini</i>	0.15	0.15	0.5
Palmitic acid <sup>1</sup>		-	1.0	-
Parsley seed oil <sup>2</sup>	<i>Petroselinum</i> spp	0.15	0.15	0.5
Patchouli oil and absolute <sup>2</sup>	<i>Pogostemon</i> spp	0.15	0.15	0.5
** Patent Blue V <sup>2</sup>	Acid Blue 3 C.I. No 42051	0.05	-	-
Peach kernel oil <sup>2</sup>	<i>Prunus persica</i>	0.15	0.15	0.5
Pectin <sup>1</sup>		2.0	2.0	2.0
n-Pentane		-	<i>Quantum satis</i>	-
Pent-3-en-4-olide <sup>2</sup>	5-Methyl-2-(3H)-furanone	0.001	0.001	0.001
omega-Pentadecalactone <sup>2</sup>	Cyclopentadecanolide Pentadecan-15-olide	0.15	0.15	0.5
2,3-Pentanedione <sup>2</sup>	Acetyl propionyl Pentane-2,3-dione	0.001	0.001	0.001
Pepper oil, black and white <sup>2</sup>	<i>Piper nigrum</i>	0.001	-	0.001
Peppermint oil <sup>1</sup>	<i>Mentha piperita</i>	2.0	2.0	2.0
Petitgrain oil and absolute <sup>2</sup>	<i>Citrus aurantium</i>	0.15	0.15	0.5
Phenethyl acetate <sup>2</sup>	Benzyl carbinyol acetate	0.15	0.15	0.5
Phenethyl alcohol <sup>2</sup>	2-Phenylethanol	0.15	0.15	0.5
Phenethyl isobutyrate <sup>2</sup>	2-Phenylethyl isobutyrate	0.15	0.15	0.5
Phenethyl isovalerate <sup>2</sup>	2-Phenylethyl-3-isovalerate	0.15	0.15	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Phenethyl phenylacetate <sup>2</sup>	2-Phenylethyl phenylacetate	0.15	0.15	0.5
Phenethyl valerate <sup>2</sup>	2-Phenyl ethyl valerate	0.15	0.15	0.5
Phenyl acetaldehyde <sup>2</sup>	Benzylcarboxyaldehyde	0.15	0.15	0.5
Phenyl acetic acid <sup>2</sup>	Benzeneacetic acid	0.15	0.15	0.5
4-Phenyl-3-buten-2-one <sup>2</sup>	Benzylidene acetone 4-Phenyl but-3-enone	0.15	0.15	0.5
3-Phenyl propionaldehyde <sup>2</sup>	Hydrocinnamaldehyde	-	-	0.001
3-Phenyl propionic acid <sup>2</sup>	Hydrocinnamic acid	0.002	0.002	0.002
3-Phenyl-1-propanol <sup>2</sup>	Hydrocinnamic alcohol 3-Phenyl propan-1-ol	0.15	0.15	0.5
ortho-Phosphoric acid <sup>1</sup>		2.0	2.0	2.0
3-Phenylpropyl acetate <sup>2</sup>		0.0001	-	-
Pine needle oil, dwarf <sup>2</sup>	<i>Pinus mugo</i> <i>Abies sibirica</i>	0.15	0.15	0.5
Pigment Red 184 <sup>2</sup>	C.I. No. 12487	-	0.1	-
Pigment Yellow 13 <sup>2</sup>	C.I. No 21100	-	0.1	-
alpha-Pinene <sup>2</sup>	2,6,6-Trimethylbicyclo (3.1.1) -2-heptene Pin-2-ene	0.15	0.15	0.5
Piperonal <sup>2</sup>	Heliotropine	0.15	0.15	0.5
Pipsissewa leaf extract <sup>2</sup>	<i>Chimaphila umbellata</i>	0.002	0.002	0.002
Polyvinyl acetate homo-polymer <sup>1</sup>		1.0	1.0	-
Polyvinyl acetate/vinyl alcohol copolymer <sup>1</sup>		1.0	-	-
Polyvinyl alcohol <sup>1</sup>		1.0	1.0	-
** Ponceau 4R <sup>2</sup>	Cochineal red A C.I. No 16255	0.05	0.01	-
Potassium carbonate <sup>1</sup>		5.0	5.0	5.0
Potassium or sodium chloride <sup>1</sup>		5.0	5.0	5.0
Potassium hydroxide paper <sup>1</sup> (no free residue)		2.0	-	-
Potassium hydroxide sheet <sup>1</sup> (no free residue)		0.5	0.5	0.5

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Potassium phosphate <sup>1</sup>	Phosphoric acid, potassium salts	2.0	-	-
Propane		<i>Quantum satis</i>		-
Propenyl guaethol <sup>2</sup>	Vanitrope 3-Propenyl-6-ethoxy phenol	-	-	0.005
Propionic acid and/or its sodium salts <sup>1</sup>	Methyl acetic acid	0.5	0.5	1.0
n-Propyl acetate <sup>2</sup>	Propyl ethanoate	0.0001	0.0001	0.0001
n-Propyl alcohol <sup>2</sup>	Propan-1-ol	<i>Quantum satis</i>		
Propyl butyrate <sup>2</sup>		0.0001	-	0.0001
Propyl phenyl acetate <sup>2</sup>	Propyl alpha-toluate	0.15	0.15	0.5
Propylene glycol <sup>1</sup>	1,2-Propanediol	6.0	6.0	6.0
Propylidenephthalide <sup>2</sup>	3-propylidene-1(3H)- isobenzofuranone	0.0001	-	-
Pyroligneous acid extract <sup>2</sup>	<i>Carya alba</i> Wood vinegar	0.001	-	0.001
Pyruvic acid <sup>2</sup>	Pyroracemic acid 2-Oxopropionic acid	-	-	0.001
Quebracho bark extract <sup>2</sup>	<i>Aspidosperma quebracho blanco</i>	0.15	0.15	0.5
Reaction products <sup>1</sup> Known and specified mixture of amino acids and reducing sugars heated under pressure	Toasting flavours	2.0	-	2.0
Rhodinol <sup>2</sup>	3,7-Dimethyl-(6- or 7-) octen-1-ol	0.15	0.15	0.5
Rhodinyl acetate <sup>2</sup>	Rhodinyl ethanoate Dimethyl-(7-)octen-1-yl acetate	0.15	0.15	0.5
Rose water <sup>2</sup>	<i>Rosa centifolia</i>	0.15	0.15	0.5
Rose oil and absolute <sup>2</sup>	<i>Rosa</i> spp	0.15	0.15	0.5
Rosemary oil and absolute <sup>2</sup>	<i>Rosmarinus officinalis</i>	0.001	-	0.001
Rum ether <sup>2</sup>	Ethyl oxyhydrate	0.15	0.15	0.5
Saccharin and/or its sodium salt <sup>1</sup>		0.1	0.1	0.1

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Saffron <sup>2</sup>	<i>Crocus sativus</i>	0.15	0.15	0.5
Sage, sage oil and oleoresin <sup>2</sup>	<i>Salvia officinalis</i> <i>Salvia lavandulaefolia</i>	0.15	0.15	0.5
Salicylaldehyde <sup>2</sup>	ortho-Hydroxybenzaldehyde	0.0002	-	0.002
Sandalwood oil, yellow <sup>2</sup>	<i>Santalum album</i>	0.15	0.15	0.5
Shellac <sup>1</sup>		0.5	0.5	0.5
Silicic acid <sup>1</sup>	See aluminosilicates	5.0	-	-
Sodium alginate <sup>1</sup>	Algin	0.5	1.0	0.5
Sodium bicarbonate <sup>2</sup>		0.0001	0.0001	0.0001
Sodium bisulphate <sup>1</sup>	Sodium hydrogen sulphate	5.0	5.0	5.0
Sodium carbonate <sup>1</sup>		2.0	-	-
Sodium hydroxide paper <sup>1</sup> (no free residue)		2.0	-	-
Sodium hydroxide sheet <sup>1</sup> (no free residue)		0.5	0.5	0.5
Sodium phosphate <sup>1</sup>	Sodium ortho-phosphate Phosphoric acid, sodium salts	2.0	-	-
Sorbic acid and/or its potassium or sodium salts <sup>1</sup>		0.5	0.5	1.0
Sorbitol <sup>1</sup>	Hexanehexol	8.0	8.0	8.0
Spearmint oil <sup>2</sup>	<i>Mentha spicata</i> <i>Mentha viridis</i>	0.15	0.15	0.5
Spike lavender oil <sup>2</sup>	<i>Lavandula latifolia</i>	0.15	0.15	0.5
Spiranol <sup>2</sup>	Dihydro-6-hydroxy -theaspirane 6-Hydroxydihydro theaspirane	0.001	-	0.001
Spirits, distilled	Whisky, brandy, rum	<i>Quantum satis</i>		
Star anise oil <sup>1</sup>	<i>Illicium verum</i>	0.1	0.1	0.1
Starch <sup>1</sup>	Corn, maize, tapioca, potato	2.0	1.0	-
Starch, modified including cationic <sup>1</sup>		2.0	1.0	-
Styrax gum and extract, and oil <sup>2</sup>	<i>Liquidambar</i> spp Storax	0.15	0.15	0.5
Sucrose and sucrose syrup <sup>1</sup>	White sugar, invert, raw or brown sugar, golden syrup and molasses	10.0	10.0	15.0

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
** Sunset Yellow FCF <sup>2</sup>	Food yellow No.3 C.I.No 15985	0.01	0.01	-
Tamarind extract <sup>1</sup>	<i>Tamarindus indica</i>	0.1	0.1	0.1
Tannic acid <sup>2</sup>		-	-	0.001
Tarragon oil <sup>2</sup>	<i>Artemisia dracunculus</i>	0.15	0.15	0.5
Tartaric acid and its potassium and sodium salts <sup>1</sup>		2.0	2.0	4.0
** Tartrazine Yellow <sup>2</sup>	C.I. No 19140 FD&C Yellow No.5	0.14	-	-
Tea, absolute and resinoid <sup>2</sup>	<i>Thea sinensis</i>	0.15	0.15	0.5
Terpineol <sup>2</sup> (alpha-, beta- and gamma)		0.15	0.15	0.5
Terpinyl acetate <sup>2</sup>	para-Menth-1-en-8-yl acetate mixture of alpha-, beta- and gamma-isomers	0.15	0.15	0.5
4,5,6,7-Tetrahydro-3,6-dimethyl benzofuran <sup>2</sup>	Menthofuran	0.15	0.15	0.5
Tetrahydro-4-methyl-2- (2-methylpropen-1-yl) pyran <sup>2</sup>	Rose oxide	0.001	0.001	0.001
5,6,7,8-Tetrahydroquinoxaline <sup>2</sup>		0.0001	-	-
2,3,5,6-Tetramethyl pyrazine <sup>2</sup>		0.001	0.001	0.001
Thiabendazole <sup>2</sup>	(2-[Thiazol-4-yl]) benzimidazole	0.03	0.03	0.03
Thyme oil, white and red <sup>2</sup>	<i>Thymus vulgaris</i>	0.15	0.15	0.5
Thymol <sup>2</sup>	3-para-Cymenol	-	-	0.001
Titanium dioxide <sup>1</sup>		2.0	2.0	2.0
*** Tobacco extracts <sup>1</sup>	<i>Nicotiana tabacum</i>	<i>Quantum satis</i>		
Tolu balsam gum and extract <sup>2</sup>	<i>Myroxylon balsamum</i>	0.15	0.15	0.5
Tolualdehydes <sup>2</sup> (ortho-, meta- and para-)	mixed 2,3,4-Methyl benzaldehydes Tolylaldehydes	0.15	0.15	0.5
para-Tolyl acetate <sup>2</sup>	para-Cresyl acetate	0.0001	-	-
para-Tolyl-3-methylbutyrate <sup>2</sup>	para-Cresyl isovalerate	0.001	0.001	0.001
Tolyl phenylacetate <sup>2</sup>	para-Cresyl phenyl acetate	-	-	0.001

Name	Synonyms or Biological Origin	Cigarette/ RYO	Cigar	Pipe tobacco
		Maximum inclusion limit (%)		
Trichlorofluoromethane	CFC 11	-	<i>Quantum satis</i>	-
Triethyl citrate <sup>2</sup>	Citric acid, triethyl ester	0.01	-	0.01
Triethylene glycol <sup>1</sup>	2,2,-Ethylene dioxyethanol	2.0	2.0	4.0
2,2,6-Trimethyl cyclohexanone <sup>2</sup>		0.001	-	0.001
2,3,5-Trimethyl pyrazine <sup>2</sup>		0.0001	-	0.001
Tuberose absolute and oil <sup>2</sup>	<i>Polyanthes tuberosa</i>	0.15	0.15	0.5
Turpentine oil <sup>2</sup>	<i>Pinus spp</i>	0.15	0.15	0.5
gamma-Undecalactone <sup>2</sup>	4-Hydroxy undecenoic acid Undecan-4-olide	0.15	0.15	0.5
Undecanal <sup>2</sup>	Aldehyde C-11 (undecylic)	0.001	0.001	0.001
Urea <sup>1</sup>		2.0	-	-
Valeraldehyde-N <sup>2</sup>	Valeric aldehyde	0.0001	-	-
Valerian root powder, extract and oil <sup>2</sup>	<i>Valeriana officinalis</i>	0.15	0.15	0.5
Valeric acid <sup>2</sup>	Pentanoic acid	0.15	0.15	0.5
gamma-Valerolactone <sup>2</sup>	4-Hydroxypentanoic acid	0.002	0.002	0.004
Vanilla beans or pods, or extract and oleoresin <sup>1</sup>	<i>Vanilla spp</i>	0.1	0.1	0.1
Vanillin <sup>1</sup>	4-Hydroxy -3-methoxy benzaldehyde	0.3	0.3	0.3
Veratraldehyde <sup>2</sup>	3,4-Dimethoxybenzaldehyde	0.15	0.15	0.5
Vetiver oil <sup>2</sup>	<i>Vetiveria zizanioides</i>	0.15	0.15	0.5
Violet oil and absolute <sup>2</sup>	<i>Viola odorata</i>	0.15	0.15	0.5
Violet leaf absolute <sup>2</sup>	<i>Viola odorata</i>	0.15	0.15	0.5
Walnut extractables <sup>2</sup>	<i>Juglans regia</i>	0.01	-	-
Wheat extract and absolute <sup>2</sup>	<i>Triticum spp</i>	-	-	0.5
Wine and wine sherry		<i>Quantum satis</i>		
Ylang Ylang oil and absolute <sup>2</sup>	<i>Cananga odorata</i>	0.15	0.15	0.5

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1 Additives with an inclusion limit at or above 0.15% of final product, with an aggregated limit not exceeding 15% in cigarettes (less filter, plus overwrap), RYO tobacco or cigars and 30% in pipe tobacco. (List 1)

2 Additives with an inclusion limit at or below 0.15% of final product, with an aggregated limit not exceeding 0.15% in cigarettes (less filter, plus overwrap), RYO tobacco or cigars and 0.5% in pipe tobacco. (List 2)

+ Use of the term amyl in the name of this ester shall mean the name covers the pentyl and other C5 alkyl of the acid and mixtures of those esters.

\*\* Permitted only for specific applications by prior approval.

\*\*\* Permitted for aroma and flavour purposes as long as the nicotine content of the finished tobacco is not measurably increased by the application of such extractables.

Ethanol

Includes pure alcohol and other unsweetened distilled spirits such as brandy, rum and whisky, also ethanol denatured with not more than 0.05% of nicotine salts (calculated as nicotine).

The following changes are highlighted compared to the list issued in March 2000

A) Newly Approved Additives

Name	Synonyms or Biological Origin	Tobacco Product	Maximum inclusion limit (%)
Beeswax Absolute	<i>Apis mellifera</i>	Cigarettes	0.0001
Citronellic acid	3,7-Dimethyl-6-octenoic acid	Cigarettes	0.0001
5-Ethyl-3-hydroxy-4-methyl-2(5H)-furanone		Cigarettes	0.0001
Isoamyl cinnamate	Isoamyl isocinnamate	Cigarettes	0.0001
2-Isobutyl-3-methoxypyrazine		Cigarettes	0.0001
Isobutyric acid	2-Methyl propionic acid	Cigarettes	0.0001
Mate distillate		Cigarettes	0.0001
Nitrogen		Cigarettes/Cigars	Quantum satis
Octyl acetate	2-ethyl-1-hexanol acetate	Cigarettes	0.0001
Origanum extract	<i>Origanum vulgare</i>	Cigarettes	0.0001
3-Phenylpropyl acetate		Cigarettes	0.0001
3-Propylidenephthalide		Cigarettes	0.0001
5,6,7,8-Tetrahydroquinoxaline		Cigarettes	0.0001
para-Tolyl acetate	para-Cresyl acetate	Cigarettes	0.0001
Valeraldehyde-N	Valeric aldehyde	Cigarettes	0.0001
Walnut extractables	<i>Juglans regia</i>	Cigarettes	0.01

B) Changes to limits in previously approved Additives

Name	Synonyms or Biological Origin	Tobacco Product	Max inclusion limit (%)	
			New	Previous
Diacetyl	Biacetyl	Cigarettes	0.002	0.0001
2,5-Dimethyldihydrofuranolone	Furaneol 4-Hydroxy-2,5-dimethyl-3-[2H] furanone	Cigarettes	0.003	0.001
Ethyl maltol	2-Ethyl-3-hydroxy-4H-pyran-4-one	Pipe tobacco	0.01	0.001
Ethyl-2-methyl butyrate	Ethyl-2-methyl butanoate	Cigarettes	0.002	0.001
Hexen-2-al	cis & trans-Hex-2-enal	Cigarettes	0.002	0.001
Humic acid		Cigarettes	1.5	-
1-Octen-3-ol	Amyl vinyl carbinol	Cigarettes	0.0001	-
Salicylaldehyde	ortho-Hydroxybenzaldehyde	Cigarettes	0.0002	0.0001