

Index of IFRA Standards – 45th Amendment

The IFRA recommendations are grouped into three categories as follows:

- P** (prohibited) The material should not be used as a fragrance ingredient.
- R** (restricted) The use of the material should be limited quantitatively.
- S** (specified) The material should only be used if it meets certain purity criteria or if it used in conjunction with other materials.

2 REVISED Standard, 5 NEW Standards (are indicated in yellow)

	Substance	CAS	Last Amended	Standard
1.	Acetyl ethyl tetramethyl tetralin (AETT, Versalide)	88-29-9	11.77 (05.06) ¹	P
2.	5-Acetyl-1,1,2,3,3,6-hexamethyl indan (AHMI, Phantolid)	15323-35-0	10.87 (04.05)	R
3.	Acetyl isovaleryl (5-Methyl-2,3-hexanedione)	13706-86-0	02.80 (05.06)	P
4.	Alantroot oil (Elecampane oil)	97676-35-2	06.75 (05.06)	P
5.	Allyl Esters	N/A	02.77 (07.09)	S
6.	Allyl heptene carbonate	73157-43-4	05.07 (07.08)	P
7.	Allyl isothiocyanate	57-06-7	(07.08)	P

¹ The dates in brackets indicate a modification of the Standard that did NOT affect the IFRA recommendations (for instance, an update of the references or a reformatting of the Standard). The dates without brackets refer to a change that affected the IFRA recommendations.

	Substance	CAS	Last Amended	Standard
8.	Allyl phenoxyacetate	7493-74-5	07.09	R-S
9.	Angelica root oil	8015-64-3	10.78 (04.05)	R
10.	alpha-Amyl cinnamic alcohol	101-85-9	05.07	R
11.	alpha-Amyl cinnamic aldehyde	122-40-7	05.07	R
12.	Amylcyclopentenone	25564-22-1	05.07 (07.08)	P
13.	Anisyl alcohol	105-13-5	05.07	R
14.	Anisylidene acetone (4-(p-methoxyphenyl)-3-butene-2-one)	943-88-4	11.74 (05.06)	P
15.	cis-and trans-Asarone ((E)-and(Z)-2,4,5-Trimethoxypropen-1-yl benzene)	2883-98-9 5273-86-9	12.91	P-R
16.	Benzaldehyde	100-52-7	07.09	R
17.	Benzene	71-43-2	04.04	P
18.	Benzyl alcohol	100-51-6	05.07	R
19.	Benzyl Benzoate	120-51-4	05.07	R
20.	Benzyl cinnamate	103-41-3	05.07	R
21.	Benzyl cyanide	140-29-4	04.04	P
22.	Benzylidene acetone (4-Phenyl-3-buten-2-one)	122-57-6	06.74 (05.06)	P
23.	Benzyl salicylate	118-58-1	05.07	R
24.	Bergamot oil expressed	8007-75-8	06.92	R
25.	Birch wood pyrolysate	8001-88-5 84012-15-7 85940-29-0 68917-50-0	04.04	S-P
26.	Bitter orange peel oil expressed	68916-04-1 72968-50-4	07.02	R

	Substance	CAS	Last Amended	Standard
27.	Boldo oil	8022-81-9	07.09	P
28.	3-Bromo-1,7,7-trimethylbicyclo[2.2.1]heptane-2-one	76-29-9	(07.08)	P
29.	Bromostyrene	103-64-0	(07.08)	P
30.	p-tert-Butyl-dihydrocinnamaldehyde (Bourgeonal)	18127-01-0	07.08	R
31.	p-tert-Butyl-alpha-methylhydrocinnamic aldehyde (BMHCA)	80-54-6	07.08	R
32.	p-tert-Butylphenol	98-54-4	06.75 (05.06)	P
33.	Cade oil (Juniperus oxycedrus L.)	8013-10-3 90046-02-9	04.04	S-P
34.	Carvone; d-Carvone; l-Carvone	99-49-0 2244-16-8 6485-40-1	07.08	R
35.	Carvone oxide	33204-74-9	04.04	P
36.	Chenopodium oil	8006-99-3	(07.08)	P
37.	Cinnamic alcohol	104-54-1	07.08	R
38.	Cinnamic aldehyde	104-55-2	07.08	R
39.	Cinnamic aldehyde dimethyl acetal	4364-06-1	07.09	R
40.	Cinnamylidene acetone	4173-44-8	(07.08)	P
41.	Cinnamyl nitrile	1885-38-7 4360-47-8	07.08	R
42.	Citral	5392-40-5 141-27-5 106-26-3	05.06	R

Substance	CAS	Last Amended	Standard
43. Citronellol	106-22-9 1117-61-9 26489-01-0 6812-78-8 141-25-3 68916-43-8 7540-51-4	05.07	R
44. Citrus oils and other furocoumarins containing essential oils		12.96	R
45. Colophony	8050-09-7	12.92 (05.06)	P
46. Costus root oil, absolute and concrete	8023-88-9	05.98 (05.06)	P
47. Coumarin	91-64-5	07.08	R
48. Cumin oil	8014-13-9	06.86 (04.05)	R
49. Cyclamen alcohol (3-(4-Isopropylphenyl)-2-methylpropanol)	4756-19-8	10.78 (02.80)	P-S
50. 2,4-Decadienal	2363-88-4	07.09	P
51. Dibenzyl ether	103-50-4	07.09	R
52. 1,3-Dibromo-2-methoxy-4-nitro-5-(1,1-dimethylethyl)-6-methyl-benzene (Musk alpha)	63697-53-0	(07.08)	P
53. 1,3-Dibromo-2-methoxy-4-methyl-5-nitrobenzene (Musk KS)	62265-99-0	(07.08)	P
54. 2,2-Dichloro-1-methylcyclopropylbenzene	3591-42-2	(07.08)	P
55. Diethyl maleate	141-05-9	06.75 (05.06)	P
56. Dihydrocoumarin (Melilotine)	119-84-6	10.74 (05.06)	P
57. 2,4-Dihydroxy-3-methylbenzaldehyde	6248-20-0	04.89 (05.06)	P

Substance	CAS	Last Amended	Standard
58. Dimethylcyclohex-3-ene-1-carbaldehyde (mixed isomers)	68737-61-1 68039-49-6 68039-48-5 27939-60-2 67801-65-4	06.10	R
59. 1-(5,5-Dimethyl-1-cyclohexen-1-yl)pent-4-en-1-one	56973-85-4	07.09	R
60. 4,6-Dimethyl-8-tert-butylcoumarin (Butolia)	17874-34-9	06.81 (05.06)	P
61. 3,7-Dimethyl-2-octen-1-ol	40607-48-5	04.04	P
62. 2,2-Dimethyl-3-(3-tolyl)propan-1-ol (Majantol)	103694-68-4	06.10	R-S
63. Dimethyl citraconate	617-54-9	10.76 (05.06)	P
64. Diphenylamine	122-39-4	04.04	P
65. Esters of 2-octynoic acid (Except Methyl heptine carbonate which is IFRA Restricted)	10484-32-9 10519-20-7	(07.08)	P
66. Esters of 2-nonynoic acid, (Except Methyl octine carbonate)	10031-92-2	(07.08)	P
67. Estragole (Methyl chavicol)	140-67-0	07.09	R
68. 2-Ethoxy-4-methylphenol	2563-07-7	07.08	R
69. Ethyl acrylate	140-88-5	11.74 (05.06)	P
70. Ethylene glycol monoethyl ether and its Acetate	110-80-5 111-15-9 (acetate)	04.04	P
71. Ethylene glycol monomethyl Ether and its Acetate	109-86-4 110-49-6 (acetate)	04.04	P
72. Eugenol	97-53-0	07.08	R
73. Farnesol	4602-84-0	05.06	R-S

Substance	CAS	Last Amended	Standard
74. Fig leaf absolute	68916-52-9	05.83 (05.06)	P
75. Furfuryl alcohol	98-00-0	07.09	P
76. Furfurylidene acetone	623-15-4	(07.08)	P
77. Geraniol	106-24-1	05.07	R
78. Geranyl nitrile	5146-66-7 5585-39-7 31983-27-4	11.06 (07.08)	P
79. Grapefruit oil expressed	8016-20-4	06.92	R
80. 2,4-Heptadienal	5910-85-0	07.09	P
81. trans-2-Heptenal	18829-55-5	04.89 (05.06)	P
82. 2,4-Hexadienal	80466-34-8	07.09	P
83. Hexahydrocoumarin	700-82-3	02.80 (05.06)	P
84. trans-2-Hexenal	6728-26-3	07.08	R
85. trans-2-Hexenal diethyl acetal	67746-30-9	04.89 (05.06)	P
86. trans-2-Hexenal dimethyl acetal	18318-83-7	04.89 (05.06)	P
87. alpha-Hexyl cinnamic aldehyde	101-86-0	05.07	R
88. alpha-Hexylidene cyclopentanone	17373-89-6	07.08	R
89. Hexyl salicylate	6259-76-3	05.07	R
90. Hydroabietyl alcohol, dihydroabietyl alcohol	13393-93-6 26266-77-3 1333-89-7	04.04	P
91. Hydroquinone monoethyl ether (4-ethoxy-Phenol)	622-62-8	10.83 (05.06)	P

	Substance	CAS	Last Amended	Standard
92.	Hydroquinone monomethyl ether (4-methoxy-Phenol)	150-76-5	10.83 (05.06)	P
93.	Hydroxycitronellal	107-75-5	07.08	R
94.	3 and 4-(4-Hydroxy-4-methylpentyl)-3-cyclohexene-1-carboxaldehyde (HMPCC)	31906-04-4 51414-25-6	07.09	R
95.	p-Isobutyl-α-methyl-hydrocinnamaldehyde	6658-48-6	07.09	R
96.	Isobutyl N-methylantranilate	65505-24-0	07.09	R
97.	Isocyclocitral	1335-66-6 1423-46-7 67634-07-5	05.07	R
98.	Isocyclogeraniol (2,4,6-Trimethyl-3-cyclohexene-1-methanol)	68527-77-5	07.08	R
99.	Isoeugenol	97-54-1	07.08	R
100.	Isophorone	78-59-1	(07.08)	P
101.	6-Isopropyl-2-decalol (Decatol)	34131-99-2	06.79 (05.06)	P
102.	Jasmine absolute (grandiflorum)	8022-96-6 8024-43-9 90045-94-6 84776-64-7	07.08	R
103.	Jasmine absolute (sambac)	91770-14-8	07.08	R
104.	Lemon oil cold pressed	8008-56-8	06.92	R
105.	Lime oil expressed	8008-26-2	06.92	R
106.	Limonene	138-86-3	12.95	S
107.	Linalool; d-Linalool; l-Linalool	78-70-6 126-90-9 126-91-0	04.04	S
108.	Massoia bark oil	85085-26-3	(07.08)	P
109.	Massoia lactone	54814-64-1	(07.08)	P

Substance	CAS	Last Amended	Standard
110. Melissa oil (genuine Melissa officinalis L.)	8014-71-9 84082-61-1	07.09	R
111. p-Mentha-1,8-dien-7-al (Perilla aldehyde)	2111-75-3	07.08	R
112. Menthadiene-7-methyl formate (Isobergamate)	68683-20-5	07.08	R
113. 7-Methoxycoumarin	531-59-9	02.79 (07.08)	P
114. Methoxy dicylopentadiene carboxaldehyde (Scentenal)	86803-90-9	07.08	R
115. 4-Methoxy- α -methylbenzenepropanal	5462-06-6	07.09	R
116. 2-Methoxy-4-methylphenol (p-Creosol)	93-51-6	07.08	R
117. α -Methyl anisylidene acetone (1-(4-Methoxyphenyl)-1-penten-3-one)	104-27-8	05.80 (05.06)	P
118. α -Methyl-1,3-benzodioxole-5-propionaldehyde (MMDHCA)	1205-17-0	06.10	R
119. α -Methyl cinnamic aldehyde	101-39-3	05.07	R
120. 6-Methylcoumarin (Toncarine)	92-48-8	05.80 (05.06)	P
121. 7-Methylcoumarin	2445-83-2	05.83 (05.06)	P
122. Methyl crotonate	623-43-8	05.80 (05.06)	P
123. 4-Methyl-7-ethoxycoumarin (Maraniol)	87-05-8	06.79 (05.06)	P
124. Methyl Eugenol	93-15-2	07.02	R
125. 6-Methyl-3,5-heptadiene-2-one (Methyl heptadienone)	1604-28-0	07.09	R
126. Methyl heptene carbonate (MHC, Folione)	111-12-6	07.08	R
127. p-Methylhydrocinnamic aldehyde	5406-12-2	(07.08)	P

Substance	CAS	Last Amended	Standard
128. Methyl ionone, mixed isomers	1335-46-2 127-42-4 127-43-5 127-51-5 7779-30-8	07.08	R
129. Methyl methacrylate	80-62-6	(07.08)	P
130. Methyl N-methylantranilate (Dimethyl anthranilate)	85-91-6	07.09	R
131. Methyl beta-naphtyl ketone	93-08-3	04.05	R
132. 3-Methyl-2(3)-nonenenitrile (Citgrenile)	53153-66-5	05.07 (07.08)	P
133. Methyl octine carbonate (MOC)	111-80-8	07.08	R
134. p-Methyltetrahydroquinoline	91-61-2	07.09	R
135. Moskene (1,1,3,3,5-Pentamethyl-4,6-dinitroindane)	116-66-5	04.05 (07.08)	P
136. Musk ambrette	83-66-9	12.95 (05.06)	P
137. Musk ketone	81-14-1	06.10	S
138. Musk tibetene (1-tert-Butyl-2,6-dinitro-3,4,5-trimethylbenzene)	145-39-1	04.05 (07.08)	P
139. Musk Xylene	81-15-2	07.09	P
140. Nitrobenzene	98-95-3	06.74 (05.06)	P
141. 2,4-Nonadienal	6750-03-4	07.09	P
142. Nootkatone	4674-50-4	05.06	S
143. Oak moss extracts	90028-68-5 9000-50-4 68917-10-2	07.08	R-S

	Substance	CAS	Last Amended	Standard
144.	1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone (OTNE)	54464-57-2	07.08	R
145.	1-Octen-3-yl acetate (Amyl vinyl carbiny acetate)	2442-10-6	07.08	R
146.	Opoponax		07.94 (04.99)	R
147.	2-Pentylidene cyclohexanone	25677-40-1	05.83 (05.06)	P
148.	Peru balsam crude	8007-00-9	12.91 (05.07)	P
149.	Peru balsam extracts and distillates	8007-00-9	07.08	R
150.	Phenylacetaldehyde (Hyacinthin)	122-78-1	05.06	R
151.	Phenyl acetone (Methyl benzyl ketone)	103-79-7	(07.08)	P
152.	Phenyl benzoate	93-99-2	(07.08)	P
153.	3-Phenylbutanal	16251-77-7	06.10	R
154.	2-Phenylpropionaldehyde	93-53-8	07.09	R
155.	Pinacea derivatives		07.94	S
156.	3-Propylidene phthalide	17369-59-4	07.08	R
157.	Pseudoionone (2,6-Dimethylundeca-2,6,8-trien-10-one)	141-10-6	04.89 (05.06)	P-S
158.	Pseudo Methylionones	26651-96-7 72968-25-3 1117-41-5	07.09	P
159.	Quinoline	91-22-5	06.10	P

Substance	CAS	Last Amended	Standard
160. Rose Ketones	23696-85-7 23726-93-4 43052-87-5 24720-09-0 23726-94-5 23726-92-3 23726-91-2 57378-68-4 71048-82-3 39872-57-6 70266-48-7 33673-71-1 35087-49-1 35044-68-9	07.09	R
161. Rue oil	8014-29-7	04.01 (07.02)	R
162. Safrole, Isosafrole, Dihydrosafrole	94-59-7 120-58-1 94-58-6	07.87 (04.99)	P R
163. Santolina oil	84961-58-0	(07.08)	P
164. Savin oil	8024-00-8	06.82	P-S
165. Sclareol	515-03-7	04.05	S
166. Styrax		07.94	P-R
167. Tagetes oil and absolute	91722-29-1 8016-84-0	04.01 (04.05)	R
168. Tea leaf absolute (camellia sinensis leaf extract)	84650-60-2	05.06	R
169. 1,2,3,4-Tetrahydro-4-methylquinoline	19343-78-3	07.09	R
170. Toluene	108-88-3	04.04	P
171. Treemoss extracts	90028-67-4 68648-41-9 68917-40-8	07.08	R-S
172. 2,6,6-Trimethylcyclohexa-1,3-dienyl methanal (Safranal)	116-26-7	12.98	R

Substance	CAS	Last Amended	Standard
173. 2,4-Undecadienal	13162-46-4	07.09	P
174. Vanillin – Implementation on hold	121-33-5	07.09	R
175. Verbena absolute (Lippia citriodora)	8024-12-2	06.10	R
176. Verbena oil	8024-12-2	12.81 (05.06)	P
177. Vetiveryl Acetate (the former specification Standard on Acetylated vetiver oil is replaced by this one)	117-98-6 62563-80-8 68917-34-0 73246-97-6 84082-84-8	07.09	R-S
178. Ylang Ylang Extracts	8006-81-3 68606-83-7 83863-30-3	07.08	R