Annex I to the IFRA Standards – 46th Amendment

This Annex gives indicative maximum levels of the limited substances in different fragrance materials (e.g. in essential oils). These indicative levels should be taken into account when determining the compliance of a fragrance compound under its conditions of use. However, if reliable analysis has shown that the level of the limited substance in a specific fragrance material is not the same as the indicative level given in this Annex, then the analyzed level can be used instead of the indicative level.

The list is intended to be as comprehensive as possible but still remains illustrative only and cannot be regarded as exhaustive.

Part I

Part I is an alphabetical list of the materials that have a Standard and for which contributions from other sources need to be taken into account, listing the sources with indicative values

Material with a Standard	Other source	Level of restricted material in the other source (%)
Benzaldehyde	Almond oil	<99%
	Cassia oil	≤ 2
	Niaouli oil	< 0.5
	Cinnamon bark oil	< 0.2
	Cinnamon leaf oil	< 0.2
	Peru balsam oil (vacuum distillation of crude balsam)	< 0.2
	Styrax Honduras (Liquidambar styraciflua) oil	< 0.1
	Almond oil sweet (cold pressed)	< 0.1
Benzyl alcohol	Cassie absolute (VP *)	< 8
	Peru balsam oil (vacuum distillation of crude balsam)	< 5
	Peru balsam absolute	< 3
	Hyacinth absolute	< 2
	Ylang-ylang extra	< 0.5
	Ylang-ylang extra super	< 0.5
	Ylang-ylang type I, II and III	< 0.5
	Bitter almond oil	< 0.4
	Styrax Honduras (Liquidambar styraciflua) resinoid	< 0.2
	Tolu balsam resinoid	< 0.1
Benzyl benzoate	Peru balsam oil (vacuum distillation of crude balsam)	< 75
	Flouve absolute	< 60
	Peru balsam absolute	< 55
	Tolu balsam resinoid	< 40

* VP for Volatile Part

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	Jasmin (Jasminum grandiflorum) absolute (VP *)	< 20
	Carnation absolute	< 15
	Ylang-ylang type II	< 10
	Ylang-ylang type I	< 9.2
	Ylang-ylang type III	< 8.5
	Ylang-ylang extra	< 8
	Ylang-ylang extra super	< 6
	Cananga oil	< 5
	Cinnamon leaf oil	< 4
	Hyacinth absolute	< 3
	Benzoin Siam (Styrax Tonkinensis) resinoid	< 2
	Cinnamon bark oil	< 2
	Rosewood oil	< 1.6
	Cassia oil	< 1
	Tuberose absolute	< 1
Benzyl cinnamate	Peru balsam oil (vacuum distillation of crude balsam)	< 9
	Tolu balsam resinoid	< 5
	Styrax (Liquidambar styraciflua) oil and resinoid	< 2.5
	Benzoin Sumatra oil	< 0.8
	Helychryse (Immortelle) oil	< 0.2
Benzyl salicylate	Ylang-ylang type III	< 5
	Carnation absolute	< 4
	Ylang-ylang extra	< 4
	Ylang-ylang type I	< 4
	Ylang-ylang type II	< 4
	Ylang-ylang extra super	< 3.5
	Cananga oil	< 1
Carvone	Chinese spearmint 80 oil	< 80
	Native/Scottish spearmint oil	< 70
	Chinese spearmint 60 oil	< 60
	Caraway oil	< 50
	Dill seed oil	< 50
	Dill weed oil	< 30
	Gingergrass oil	< 4
	Pemou oil	< 3
	Celery seed oil	< 0.2
	Parsley leaf oil	< 0.2
	Abies alba oil	< 0.1
Cinnamic alcohol	Styrax (Liquidambar styraciflua) oil and resinoid	< 4
	Cassia oil	< 1
	Cinnamon leaf oil	< 1
	Tolu balsam resinoid	< 0.6
	Cinnamon bark oil	< 0.2
Cinnamic aldehyde	Cassia oil	< 90
	Cinnamon bark oil	< 75
	Cinnamon leaf oil	< 3
	Hyacinth absolute	< 3

* VP for Volatile Part

	Tolu balsam resinoid	< 2
	Styrax (Liquidambar styraciflua) oil	< 1
Citral (neral + geranial)	Lemongrass oil	< 82
	Litsea cubeba oil	< 78
	Melissa oil (genuine)	< 50
	Petitgrain lemon oil	< 26
	Lime oil (expressed)	< 5
	Verbena (Lippia citriodora) absolute (VP *)	< 5
	Lemon oil (s)	< 3
	Rose oil (Turkey)	< 2
	Geranium oil (s)	< 1.5
	Rose oil (China)	< 1.5
	Citronella oil (Java, China, Vietnam)	< 1.3
	Geranium oil (China)	< 1.2
	Citronella oil (Ceylon)	< 1.1
	Bay oil	< 1
	Lime oil (distilled)	< 1
	Palmarosa oil	< 1
	Petitgrain bergamot oil	< 1
	Petitgrain bitter orange oil (Paraguay)	< 1
	Rose oil (Bulgaria)	< 1
	Rose oil (Morocco)	< 1
	Ginger oil (India)	< 0.8
	Petitgrain bitter orange oil	< 0.8
	Bergamot oil (expressed)	< 0.7
	Cardamom oil	< 0.6
	Bergamot oil (distilled)	< 0.4
	Neroli oil	< 0.3
	Grapefruit oil	< 0.1
	Orange bitter oil	< 0.1
	Orange sweet oil (s)	< 0.1
	Petitgrain mandarin oil	< 0.1
dl-Citronellol	Rose oil (Turkey)	< 49
	Rose oil (Morocco)	< 47
	Geranium oil (China)	< 43
	Geranium oil (North Africa)	< 36
	Rose oil (Bulgaria)	< 34
	Rose oil (China)	< 31
	Geranium oil (Bourbon)	< 26
	Citronella oil (Java, China, Vietnam)	< 14
	Citronella oil (Ceylon)	< 8.5
	Eucalyptus citriodora	< 7
	Melissa oil (genuine)	< 3
	Rose absolutes (VP *)	< 3
	Litsea cubeba oil	< 1.5
	Lemongrass oil	< 0.8
	Basil oil (Linalool type)	< 0.3
	Myrtle oil	< 0.3
	Spike Lavender oil	< 0.3
	Armoise (Artemisia alba) oil	< 0.2

* VP for Volatile Part

	Nutmeg oil	< 0.2
Coumarin	Tonka bean absolute	< 65
	Melilot absolute (VP *)	< 45
	Deer tongue leaf (Liatrix) absolute	< 25
	Lavender absolute (VP *)	< 10
	Hay absolute	< 8
	Melilot oil	< 6
	Cassia oil	< 4
	Lavandin absolute (VP *)	< 3
	Flouve absolute	< 0.8
	Narcissus absolute	< 0.5
	Lavandin oil	< 0.3
	Mimosa absolute (VP *)	< 0.3
	Tobacco absolute	< 0.3
	Tobacco nicotine-free absolute	< 0.2
	Clary sage (Salvia sclarea) absolute	< 0.1
	Lavender oil	< 0.1
	Peru balsam oil (vacuum distillation of crude balsam)	< 0.1
Estragole	Basil oil (Estragole type)	< 87
	Estragon abs (Tarragon abs, Artemisia dracunculus L.)	< 80
	Estragon oil (Tarragon oil, Artemisia dracunculus L.)	< 80
	Star Anise Terpenes	< 45
	Star Anise (Illicium verum Hook, F.) oil	< 6
	Fennel oil Bitter and Sweet (Foeniculum vulgare M.)	< 3
	Basil oil (Linalool type)	< 0.8
Eugenol	Clove bud/leaf/stem oil	< 90
	Cinnamon leaf oil	< 85
	Pimento berry or leaf oil	< 85
	Bay oil	< 56
	Carnation absolute	< 15
	Basil oil (Linalool type)	<15
	Cinnamon bark oil	< 6
	Hyacinth absolute	< 2
	Laurel leaf (Laurus nobilis) oil (sweet bay oil)	< 2
	Rose oils (Bulgaria, Morocco, China, Turkey)	< 1.5
	Mace oil	< 1.1
	Citronella oil (Java, China, Vietnam)	< 1
	Rose absolutes (VP *)	< 1
	Tuberose absolute	< 1
	Cananga oil	< 0.7
	Nutmeg oil	< 0.6
	Basil oil (Estragole type)	< 0.5
	Cassia oil	< 0.5
	Ylang-ylang extra	< 0.5
	Ylang-ylang extra super	< 0.5
	Ylang-ylang type I, II and III	< 0.5
	Cascarilla oil	< 0.3
	Lemongrass oils	< 0.3
	Origanum oil (Spanish)	< 0.3

* VP for Volatile Part

	Tolu balsam absolute (VP *)	< 0.3
	Estragon oil (Tarragon oil, Artemisia dracunculus L.)	< 0.2
	Tagete patula oil/ absolute (VP *). ND dans T. minuta	< 0.2
	Davana oil	< 0.1
	Myrtle oil	< 0.1
	Spike Lavender oil	< 0.1
	Citronella oil (Ceylon)	Traces < 0.1
Farnesol	Sandalwood oil (Australia)	< 15
	Orange flower absolute (VP *)	< 10
	Ambrette seed oil	< 5
	Rose absolutes (VP *)	< 5
	Neroli oil	< 4
	Ylang-ylang type II	< 4
	Ylang-ylang type III	< 4
	Cabreuva oil	< 3
	Ylang-ylang extra	< 3
	Ylang-ylang type I	< 3
	Rose damascena oil (Bulgaria, Turkey)	< 2.5
	Ylang-ylang absolute	< 2.2
	Cananga oil	< 2
	Ylang-ylang extra super	< 2
	Palmarosa oil	< 1.2
	Citronella oil (Java, China, Vietnam)	< 1
Geraniol	Palmarosa oil	< 85
	Citronella oil (Java, China, Vietnam)	< 25
	Citronella oil (Ceylon)	< 23
	Rose oil (Morocco)	< 23
	Rose oil (Bulgaria)	< 22
	Geranium oil (Bourbon)	< 20
	Geranium oil (North Africa)	< 20
	Rose oil (Turkey)	< 20
	Rose oil (China)	< 18.3
	Geranium oil (China)	< 12
	Lemongrass oil	< 8
	Orange flower absolute (VP *)	< 8
	Melissa oil (genuine)	< 5
	Rose absolutes (VP *)	< 5
	Petitgrain oil (Paraguay)	< 4.5
	Petitgrain bergamot oil	< 4
	Petitgrain bitter orange oil	< 4
	Neroli oil	< 3.5
	Petitgrain lemon oil	< 3.5
	Coriander fruit oil	< 3
	Ylang-ylang extra	< 3
	Ylang-ylang type I	< 2.6
	Rosewood oil	< 2.5
	Ylang-ylang type II	< 2.4
	Clary sage (Salvia sclarea) oil	< 2.2
	Carrot (seed) oil	< 2
	Mentha citrata oil (s)	< 2

* VP for Volatile Part

	Cananga oil	< 1.5
	Litsea cubeba oil	< 1.5
	Cardamom oil	< 1.2
	Cistus (Rockrose) oil	< 1.2
	Coriander leaf oil	< 1
	Lavandin absolute (VP *)	< 1
	Lavender absolute (VP *)	< 1
	Lavender oil (s)	< 1
	Snakeroot oil (Asarum canadense)	< 1
	Myrtle oil	< 0.8
	Ylang-ylang type III	< 0.8
	Ylang-ylang extra super	< 0.7
	Lavandin oil (s)	< 0.6
	Red Thyme oil (Spanish)	< 0.5
	Cajuput oil	< 0.4
	Ho oil (s)	< 0.4
	Lime oil (distilled)	< 0.4
	Lime oil (expressed)	< 0.4
	Nutmeg oil	< 0.4
	Laurel leaf (Laurus nobilis) oil	< 0.3
	Marjoram sweet oil (Origanum majorana)	< 0.3
	Basil oil (Linalool type)	< 0.2
	Hop oil	< 0.2
	Lemon oil (s)	< 0.2
	Spike Lavender oil	< 0.2
trans-2-Hexenal	Clary sage (Salvia sclarea) oil	Traces < 0.1
	Jasmine Sambac absolute	Traces < 0.1
	Laurel leaf (Laurus nobilis) oil	Traces < 0.1
	Origanum oil (Turkish)	Traces < 0.1
	Peppermint (Mentha piperita) oil	Traces < 0.1
	Petitgrain oil (various types)	Traces < 0.1
	Spearmint (Mentha spicata) oil	Traces < 0.1
	Thyme oil (Thymol type)	Traces < 0.1
	Violet leaf (Viola odorata) absolute	Traces < 0.1
Isoeugenol	Nutmeg oil	< 1
	Ylang-ylang extra	< 0.5
	Ylang-ylang extra super	< 0.5
	Ylang-ylang type I, II and III	< 0.5
	Mace oil	<0.2
	Peru balsam oil (vacuum distillation of crude balsam)	< 0.2
	Clove oils	< 0.1
	Pimento berry or leaf oil	< 0.1
ortho-Methoxycinnamaldehyde	Cassia oil (China)	< 15
	Cassia oil (India)	< 2
	Cassia oil (Indonesia)	< 0.4
Methyl eugenol	Snakeroot (Asarum canadense) oil	≤ 40
	Pimento berry oil	< 15
	Basil oil (Estragole type)	< 6

* VP for Volatile Part

	Pimento leaf oil	< 6
	Myrtle oil	< 4
	Rose oil (Bulgaria) (different types)	< 3.5
	Rose oil (China)	< 3.5
	Rose oil (Morocco)	< 3.5
	Rose oil (Turkey)	< 3.5
	Bay oil	< 2
	Citronella oil (Ceylon)	< 2
	Hyacinth absolute	< 2
	Sassafra (Sassafras albidum) oil	< 2
	Estragon oil (Tarragon oil, Artemisia dracunculus L.)	< 1.5
	Lovage leaf oil	< 1.5
	Rose absolutes (VP *)	< 1.5
	Basil oil (Linalool type)	< 1
	Cascarilla oil	< 1
	Hyssop oil	< 1
	~~Boldo oil~~[1]	~~< 1~~[1]
	Cananga oil	< 1
	Nutmeg oil	< 1
	Carrot (seed) oil	< 0.5
	Elemi (Canarium luzonicum) oil	< 0.5
	Mace oil	< 0.5
	Savory winter oil	< 0.5
	Citronella oil (Java, China, Vietnam)	< 0.2
	Calamus oil	< 0.1
	Cassia oil	< 0.1
	Armoise (Artemisia alba) oil	Traces < 0.1
	Clove bud oil /leaf oil /stem oil	Traces < 0.1
Methyl N-methyl anthranilate	Petitgrain mandarin oil	< 55
	Mandarin oil	< 0.6
	Broom absolute	< 0.2
	Petitgrain lemon oil	< 0.2
	Petitgrain Bigarade oil	< 0.1
p-Mentha-1,8-dien-7-al (Perilla Ald.)	Perilla oil	< 50-60
	Orange oil folded 5 x	< 0.3
	Mandarin oil	< 0.1
1-Octen-3-yl acetate	Lavandin oil (s)	< 1.5
	Lavander oil (s)	< 1

End Part I

[1] Please note that this material is prohibited in the 44th Amendment due to insufficient data.

* VP for Volatile Part

Part II

Part II is an alphabetical list of other sources (complex synthetic materials or essential oils) for restricted materials having Standards and which must therefore be taken into account for determination of the maximum level.

Other source	Material with a Standard	Level of restricted material in the other source (%)
Abies alba oil	Carvone	< 0.1
Almond oil	Benzaldehyde	< 99%
Almond oil sweet (cold pressed)	Benzaldehyde	< 0.1
Ambrette seed oil	Farnesol	< 5
Armoise (Artemisia alba) oil	dl-Citronellol	< 0.2
Armoise (Artemisia alba) oil	Methyl eugenol	Traces < 0.1
Basil oil (Estragole type)	Estragole	< 87
Basil oil (Estragole type)	Eugenol	< 0.5
Basil oil (Estragole type)	Methyl eugenol	< 6
Basil oil (Linalool type)	dl-Citronellol	< 0.3
Basil oil (Linalool type)	Estragole	< 0.8
Basil oil (Linalool type)	Eugenol	< 15
Basil oil (Linalool type)	Geraniol	< 0.2
Basil oil (Linalool type)	Methyl eugenol	< 1
Bay oil	Citral (neral + geranial)	< 1
Bay oil	Eugenol	< 56
Bay oil	Methyl eugenol	< 2
Benzoin Siam (Styrax Tonkinensis) resinoid	Benzyl benzoate	< 2
Benzoin Sumatra oil	Benzyl cinnamate	< 0.8
Bergamot oil (distilled)	Citral (neral + geranial)	< 0.4
Bergamot oil (expressed)	Citral (neral + geranial)	< 0.7
Bitter almond oil	Benzyl alcohol	< 0.4
~~Boldo oil~~[2]	~~Methyl eugenol~~[2]	~~< 1~~[2]
Broom absolute	Methyl N-methylanthranilate	< 0.2
Cabreuva oil	Farnesol	< 3
Cajuput oil	Geraniol	< 0.4
Calamus oil	Methyl eugenol	< 0.1
Cananga oil	Benzyl benzoate	< 5
Cananga oil	Benzyl salicylate	< 1
Cananga oil	Eugenol	< 0.7
Cananga oil	Farnesol	< 2
Cananga oil	Geraniol	< 1.5
Cananga oil	Methyl eugenol	< 1

[2] Please note that this material is prohibited in the 44th Amendment due to insufficient data.

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Caraway oil	Carvone	< 50
Cardamom oil	Citral (neral + geranial)	< 0.6
Cardamom oil	Geraniol	< 1.2
Carnation absolute	Benzyl benzoate	< 15
Carnation absolute	Benzyl salicylate	< 4
Carnation absolute	Eugenol	< 15
Carrot (seed) oil	Geraniol	< 2
Carrot (seed) oil	Methyl eugenol	< 0.5
Cascarilla oil	Eugenol	< 0.3
Cascarilla oil	Methyl eugenol	< 1
Cassia oil	Benzaldehyde	≤ 2
Cassia oil	Benzyl benzoate	< 1
Cassia oil	Cinnamic alcohol	< 1
Cassia oil	Cinnamic aldehyde	< 90
Cassia oil	Coumarin	< 4
Cassia oil	Eugenol	< 0.5
Cassia oil	Methyl eugenol	< 0.1
Cassia oil (China)	ortho Methoxycinnamaldehyde	< 15
Cassia oil (India)	ortho Methoxycinnamaldehyde	< 2
Cassia oil (Indonesia)	ortho Methoxycinnamaldehyde	< 0.4
Cassie absolute (VP *)	Benzyl alcohol	< 8
Celery seed oil	Carvone	< 0.2
Chinese spearmint 80 oil	Carvone	< 80
Chinese spearmint 60 oil	Carvone	< 60
Cinnamon bark oil	Benzaldehyde	< 0.2
Cinnamon bark oil	Cinnamic alcohol	< 0.2
Cinnamon bark oil	Cinnamic aldehyde	< 75
Cinnamon bark oil	Benzyl benzoate	< 2
Cinnamon bark oil	Eugenol	< 6
Cinnamon leaf oil	Benzaldehyde	< 0.2
Cinnamon leaf oil	Benzyl benzoate	< 4
Cinnamon leaf oil	Cinnamic alcohol	< 1
Cinnamon leaf oil	Cinnamic aldehyde	< 3
Cinnamon leaf oil	Eugenol	< 85
Cistus (Rockrose) oil	Geraniol	< 1.2
Citronella oil (Ceylon)	Citral (neral + geranial)	< 1.1
Citronella oil (Ceylon)	dl-Citronellol	< 8.5
Citronella oil (Ceylon)	Eugenol	Traces < 0.1
Citronella oil (Ceylon)	Geraniol	< 23
Citronella oil (Ceylon)	Methyl eugenol	< 2
Citronella oil (Java, China, Vietnam)	Citral (neral + geranial)	< 1.3
Citronella oil (Java, China, Vietnam)	dl-Citronellol	< 14
Citronella oil (Java, China, Vietnam)	Eugenol	< 1

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Citronella oil (Java, China, Vietnam)	Farnesol	< 1
Citronella oil (Java, China, Vietnam)	Geraniol	< 25
Citronella oil (Java, China, Vietnam)	Methyl eugenol	< 0.2
Clary sage (Salvia sclarea) oil	Geraniol	< 2.2
Clary sage (Salvia sclarea) oil	trans-2-Hexenal	Traces < 0.1
Clary sage (Salvia sclarea) absolute	Coumarin	< 0.1
Clove bud oil /leaf oil / stem oil	Eugenol	< 90
Clove bud oil / leaf oil / stem oil	Methyl eugenol	Traces < 0.1
Clove oils	Isoeugenol	< 0.1
Coriander fruit oil	Geraniol	< 3
Coriander leaf oil	Geraniol	< 1
Davana oil	Eugenol	< 0.1
Deer tongue leaf (Liatrix) absolute	Coumarin	< 25
Dill seed oil	Carvone	< 50
Dill weed oil	Carvone	< 30
Elemi (Canarium luzonicum) oil	Methyl eugenol	< 0.5
Estragon abs (Tarragon abs, Artemisia dracunculus L.)	Estragole	< 80
Estragon oil (Tarragon oil, Artemisia dracunculus L.)	Estragole	< 80
Estragon oil (Tarragon oil, Artemisia dracunculus L.)	Eugenol	< 0.2
Estragon oil (Tarragon oil, Artemisia dracunculus L.)	Methyl eugenol	< 1.5
Eucalyptus citriodora	dl-Citronellol	< 7
Fennel oil Bitter and Sweet (Foeniculum vulgare M.)	Estragole	< 3
Flouve absolute	Benzyl benzoate	< 60
Flouve absolute	Coumarin	< 0.8
Geranium oil (Bourbon)	dl-Citronellol	< 26
Geranium oil (China)	Citral (neral + geranial)	< 1.2
Geranium oil (China)	dl-Citronellol	< 43
Geranium oil (China)	Geraniol	< 12
Geranium oil (North Africa)	dl-Citronellol	< 36
Geranium oil (Bourbon)	Geraniol	< 20
Geranium oil (North Africa)	Geraniol	< 20
Geranium oil (s)	Citral (neral + geranial)	< 1.5
Ginger oil (India)	Citral (neral + geranial)	< 0.8
Gingergrass oil	Carvone	< 4
Grapefruit oil	Citral (neral + geranial)	< 0.1
Hay absolute	Coumarin	< 8
Helychryse (Immortelle) oil	Benzyl cinnamate	< 0.2
Ho oil (s)	Geraniol	< 0.4
Hop oil	Geraniol	< 0.2
Hyacinth absolute	Benzyl alcohol	< 2
Hyacinth absolute	Benzyl benzoate	< 3
Hyacinth absolute	Cinnamic aldehyde	< 3

* VP for Volatile Part

Hyacinth absolute	Eugenol	< 2
Hyacinth absolute	Methyl eugenol	< 2
Hyssop oil	Methyl eugenol	< 1
Jasmin (Jasminum grandiflorum) absolute (VP *)	Benzyl benzoate	< 20
Jasmine Sambac absolute	trans-2-Hexenal	Traces < 0.1
Laurel leaf (Laurus nobilis) oil	Geraniol	< 0.3
Laurel leaf (Laurus nobilis) oil	trans-2-Hexenal	Traces < 0.1
Laurel leaf (Laurus nobilis) oil (sweet bay oil)	Eugenol	< 2
Lavandin absolute (VP *)	Coumarin	< 3
Lavandin absolute (VP *)	Geraniol	< 1
Lavandin oil	Coumarin	< 0.3
Lavandin oil (s)	Geraniol	< 0.6
Lavandin oil (s)	1-Octen-3-yl acetate	< 1.5
Lavender absolute (VP *)	Coumarin	< 10
Lavender absolute (VP *)	Geraniol	< 1
Lavender oil	Coumarin	< 0.1
Lavender oil (s)	Geraniol	< 1
Lavender oil (s)	1-Octen-3-yl acetate	< 1
Lemon oil (s)	Citral (neral + geranial)	< 3
Lemon oil (s)	Geraniol	< 0.2
Lemongrass oil	Citral (neral + geranial)	< 82
Lemongrass oil	dl-Citronellol	< 0.8
Lemongrass oil	Geraniol	< 8
Lemongrass oils	Eugenol	< 0.3
Lime oil (distilled)	Citral (neral + geranial)	<1
Lime oil (distilled)	Geraniol	< 0.4
Lime oil (expressed)	Citral (neral + geranial)	<5
Lime oil (expressed)	Geraniol	< 0.4
Litsea cubeba oil	Citral (neral + geranial)	< 78
Litsea cubeba oil	dl-Citronellol	< 1.5
Litsea cubeba oil	Geraniol	< 1.5
Lovage leaf oil	Methyl eugenol	< 1.5
Mace oil	Eugenol	< 1.1
Mace oil	Isoeugenol	< 0.2
Mace oil	Methyl eugenol	< 0.5
Mandarin oil	Methyl N-methylanthranilate	< 0.6
Mandarin oil	p-Mentha-1,8-dien-7-al (Perilla Ald.)	< 0.1
Marjoram sweet oil (Origanum majorana)	Geraniol	< 0.3
Melilot absolute (VP *)	Coumarin	< 45
Melilot oil	Coumarin	< 6
Melissa oil (genuine)	Citral (neral + geranial)	<50
Melissa oil (genuine)	dl-Citronellol	< 3

* VP for Volatile Part

Melissa oil (genuine)	Geraniol	< 5
Mentha citrate oil (s)	Geraniol	< 2
Mimosa absolute (VP *)	Coumarin	< 0.3
Myrtle oil	dl-Citronellol	< 0.3
Myrtle oil	Eugenol	< 0.1
Myrtle oil	Geraniol	< 0.8
Myrtle oil	Methyl eugenol	< 4
Narcissus absolute	Coumarin	< 0.5
Native/Scottish spearmint oil	Carvone	< 70
Neroli oil	Citral (neral + geranial)	< 0.3
Neroli oil	Farnesol	< 4
Neroli oil	Geraniol	< 3.5
Niaouli oil	Benzaldehyde	<0.5
Nutmeg oil	dl-Citronellol	< 0.2
Nutmeg oil	Eugenol	< 0.6
Nutmeg oil	Geraniol	< 0.4
Nutmeg oil	Isoeugenol	< 1
Nutmeg oil	Methyl eugenol	< 1
Orange bitter oil	Citral (neral + geranial)	< 0.1
Orange flower absolute (VP *)	Farnesol	< 10
Orange flower absolute (VP *)	Geraniol	< 8
Orange oil folded 5 x	p-Mentha-1,8-dien-7-al (Perilla Ald.)	< 0.3
Orange sweet oil (s)	Citral (neral + geranial)	< 0.1
Origanum oil (Spanish)	Eugenol	< 0.3
Origanum oil (Turkish)	trans-2-Hexenal	Traces < 0.1
Palmarosa oil	Citral (neral + geranial)	< 1
Palmarosa oil	Farnesol	< 1.2
Palmarosa oil	Geraniol	< 85
Parsley leaf oil	Carvone	< 0.2
Pemou oil	Carvone	< 3
Peppermint (Mentha piperita) oil	trans-2-Hexenal	Traces < 0.1
Perilla oil	p-Mentha-1,8-dien-7-al (Perilla Ald.)	< 50-60
Peru balsam absolute	Benzyl alcohol	< 3
Peru balsam absolute	Benzyl benzoate	< 55
Peru balsam oil	Benzyl alcohol	< 5
Peru balsam oil (vacuum distillation of crude balsam)	Benzaldehyde	<0.2
Peru balsam oil (vacuum distillation of crude balsam)	Benzyl benzoate	< 75
Peru balsam oil (vacuum distillation of crude balsam)	Benzyl cinnamate	< 9
Peru balsam oil (vacuum distillation of crude balsam)	Coumarin	< 0.1
Peru balsam oil (vacuum distillation of crude balsam)	Isoeugenol	< 0.2
Petitgrain bergamot oil	Citral (neral + geranial)	< 1
Petitgrain bergamot oil	Geraniol	< 4
Petitgrain Bigarade oil	Methyl N-methylanthranilate	< 0.1

* VP for Volatile Part

Petitgrain bitter orange oil	Citral (neral + geranial)	< 0.8
Petitgrain bitter orange oil	Geraniol	< 4
Petitgrain bitter orange oil (Paraguay)	Citral (neral + geranial)	< 1
Petitgrain lemon oil	Citral (neral + geranial)	< 26
Petitgrain lemon oil	Geraniol	< 3.5
Petitgrain lemon oil	Methyl N-methylanthranilate	< 0.2
Petitgrain mandarin oil	Citral (neral + geranial)	< 0.1
Petitgrain mandarin oil	Methyl N-methylanthranilate	< 55
Petitgrain oil (Paraguay)	Geraniol	< 4.5
Petitgrain oil (various types)	trans-2-Hexenal	Traces < 0.1
Pimento berry oil	Methyl eugenol	< 15
Pimento berry or leaf oil	Eugenol	< 85
Pimento berry or leaf oil	Isoeugenol	< 0.1
Pimento leaf oil	Methyl eugenol	< 6
Red Thyme oil (Spanish)	Geraniol	< 0.5
Rose absolutes (VP *)	dl-Citronellol	< 3
Rose absolutes (VP *)	Eugenol	< 1
Rose absolutes (VP *)	Farnesol	< 5
Rose absolutes (VP *)	Geraniol	< 5
Rose absolutes (VP *)	Methyl eugenol	< 1.5
Rose damascena oil (Bulgaria, Turkey)	Farnesol	< 2.5
Rose oil (Bulgaria)	Citral (neral + geranial)	< 1
Rose oil (Bulgaria)	dl-Citronellol	< 34
Rose oil (Bulgaria)	Geraniol	< 22
Rose oil (Bulgaria) (different types)	Methyl eugenol	< 3.5
Rose oil (China)	Citral (neral + geranial)	< 1.5
Rose oil (China)	dl-Citronellol	< 31
Rose oil (China)	Geraniol	< 18.3
Rose oil (China)	Methyl eugenol	< 3.5
Rose oil (Morocco)	Citral (neral + geranial)	< 1
Rose oil (Morocco)	dl-Citronellol	< 47
Rose oil (Morocco)	Geraniol	< 23
Rose oil (Morocco)	Methyl eugenol	< 3.5
Rose oil (Turkey)	Citral (neral + geranial)	< 2
Rose oil (Turkey)	dl-Citronellol	< 49
Rose oil (Turkey)	Geraniol	< 20
Rose oil (Turkey)	Methyl eugenol	< 3.5
Rose oils (Bulgaria, Morocco, China, Turkey)	Eugenol	< 1.5
Rosewood oil	Benzyl benzoate	< 1.6
Rosewood oil	Geraniol	< 2.5
Sandalwood oil (Australia)	Farnesol	< 15
Sassafra (Sassafras albidum) oil	Methyl eugenol	< 2
Savory winter oil	Methyl eugenol	< 0.5

* VP for Volatile Part

Snakeroot (Asarum canadense) oil	Geraniol	< 1
Snakeroot (Asarum canadense) oil	Methyl eugenol	≤ 40
Spearmint (Mentha spicata) oil	trans-2-Hexenal	Traces < 0.1
Spike Lavender oil	dl-Citronellol	< 0.3
Spike Lavender oil	Eugenol	< 0.1
Spike Lavender oil	Geraniol	< 0.2
Star Anise Terpenes	Estragole	< 45
Star Anise (Illicium verum Hook, F.) oil	Estragole	< 6
Styrax Honduras (Liquidambar styraciflua) oil	Benzaldehyde	< 0.1
Styrax Honduras (Liquidambar styraciflua) resinoid	Benzyl alcohol	< 0.2
Styrax (Liquidambar styraciflua) oil	Cinnamic aldehyde	< 1
Styrax (Liquidambar styraciflua) oil and resinoid	Benzyl cinnamate	< 2.5
Styrax (Liquidambar styraciflua) oil and resinoid	Cinnamic alcohol	< 4
Tagete patula oil/ absolute (VP *). ND in T. minuta	Eugenol	< 0.2
Thyme oil (Thymol type)	trans-2-Hexenal	Traces < 0.1
Tobacco absolute	Coumarin	< 0.3
Tobacco nicotine-free absolute	Coumarin	< 0.2
Tolu balsam absolute (VP *)	Eugenol	< 0.3
Tolu balsam resinoid	Benzyl alcohol	< 0.1
Tolu balsam resinoid	Benzyl benzoate	< 40
Tolu balsam resinoid	Benzyl cinnamate	< 5
Tolu balsam resinoid	Cinnamic alcohol	< 0.6
Tolu balsam resinoid	Cinnamic aldehyde	< 2
Tonka bean absolute	Coumarin	< 65
Tuberose absolute	Benzyl benzoate	< 1
Tuberose absolute	Eugenol	< 1
Verbena (Lippia citriodora) absolute (VP *)	Citral (neral + geranial)	< 5
Violet leaf (Viola odorata) absolute	trans-2-Hexenal	Traces < 0.1
Ylang-ylang absolute	Farnesol	< 2.2
Ylang-ylang extra	Benzyl alcohol	< 0.5
Ylang-ylang extra	Benzyl benzoate	< 8
Ylang-ylang extra	Benzyl salicylate	< 4
Ylang-ylang extra	Eugenol	< 0.5
Ylang-ylang extra	Farnesol	< 3
Ylang-ylang extra	Geraniol	< 3
Ylang-ylang extra	Isoeugenol	< 0.5
Ylang-ylang extra super	Benzyl alcohol	< 0.5
Ylang-ylang extra super	Benzyl benzoate	< 6
Ylang-ylang extra super	Benzyl salicylate	< 3.5
Ylang-ylang extra super	Eugenol	< 0.5
Ylang-ylang extra super	Farnesol	< 2
Ylang-ylang extra super	Geraniol	< 0.7

* VP for Volatile Part

Ylang-ylang extra super	Isoeugenol	< 0.5
Ylang-ylang type I	Benzyl benzoate	< 9.2
Ylang-ylang type I	Benzyl salicylate	< 4
Ylang-ylang type I	Farnesol	< 3
Ylang-ylang type I	Geraniol	< 2.6
Ylang-ylang type II	Benzyl benzoate	< 10
Ylang-ylang type II	Benzyl salicylate	< 4
Ylang-ylang type II	Farnesol	< 4
Ylang-ylang type II	Geraniol	< 2.4
Ylang-ylang type III	Benzyl benzoate	< 8.5
Ylang-ylang type III	Benzyl salicylate	< 5
Ylang-ylang type III	Geraniol	< 0.8
Ylang-ylang type III	Farnesol	< 4
Ylang-ylang type I, II and III	Benzyl alcohol	< 0.5
Ylang-ylang type I, II and III	Eugenol	< 0.5
Ylang-ylang type I, II and III	Isoeugenol	< 0.5

* VP for Volatile Part