Annex 1 to the IFRA Standards

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 analysed 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

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 (%)**
Cinnamic alcohol	Styrax oil	< 54
	Styrax resin	< 3.5
	Cassia oil	< 1
	Cinnamon leaf oil	< 1
	Tolu balsam	< 0.6
	Cinnamon bark oil	< 0.2
Cinnamic aldehyde	Cassia oil	< 90
	Cinnamon bark oil	<75
	Cinnamic aldehyde – Methyl anthranilate Schiff Base	50
	Cinnamon leaf oil	< 3
	Tolu balsam	< 1.7
	Styrax oil	< 1.1
Eugenol	Clove oil	< 92
	Cinnamon leaf oil	< 85
	Pimenta berry oil or leaf oil	< 85
	Bay oil	< 56
	Basil oil (linalool type)	<15
	Cinnamon bark oil	< 6
	Laurel oils	< 2
	Rose oils (Bulgaria, Morocco, China, Turkey)	< 1.5
	Mace oil	< 1.1
	Citronella oil Java	< 1
	Cananga oil	< 0.7
	Myrtle oil	< 0.7
	Nutmeg oil	< 0.6
	Basil oil (estragole type)	< 0.5
	Cassia oil	< 0.5

	Ylang extra super	< 0.5
	Ylang Extra	< 0.5
	Ylang Type I, II and III	< 0.5
	Cascarilla oil	< 0.3
	Lemongrass oils	< 0.3
	Origanum (Spanish)	< 0.3
	Estragon oil (Tarragon oil)	< 0.2
	Tagetes	< 0.2
	Davana oil	< 0.1
	Spike Lavender oil	< 0.1
	Tolu balsam extract	< 0.1
trans-2-Hexenal	Peppermint (*Mentha piperita)* oil	< 0.1
	Laurel leaf (Laurus nobilis) oil	< 0.1
	Spearmint (Mentha spicata) oil	< 0.1
	Clary sage (Salvia sclarea) oil	< 0.1
	Violet leaf (Viola odorata) absolute	< 0.1
	Jasmine Sambac absolute	< 0.1
Isoeugenol	Nutmeg oil	< 1.0
	Pimento berry or leaf oil	< 1.0
	Clove oils	< 0.5
	Ylang extra super	< 0.5
	Ylang Extra	< 0.5
	Ylang Typr I, II and III	< 0.5
	Origanum (Spanish)	< 0.3
	Mace oil	< 0.2
Methyl eugenol	Pimento berry oil or leaf oil	< 15
	Basil oil (linalool + estragole type)	< 6
	Bay oil	< 4
	Rose oil Bulgaria (different types)	< 2.5
	Rose oil China	< 3.5
	Rose oil Morocco	< 2.6
	Rose oil Turkey	< 3.0
	Citronella oil (Sri Lanka)	< 2
	Estragon oil (Tarragon oil)	< 1.5
	Lovage leaf oil	< 1.5
	Cascarilla oil	< 1
	Hyssop oil	< 1
	Savory winter oil	< 1
	Nutmeg oil	< 1
	Calamus oil	< 1
	Clove oil	< 0.5
	Cananga oil	< 0.5
	Carrot (seed) oil	< 0.5
	Mace oil	< 0.5
	Citronella oil (Java)	< 0.2
	Cassia oil	< 0.1
Methyl N-methylanthranilate	Petitgrain Mandarin oil	< 60%

Part II
Alphabetical list of other sources (complex synthetic materials or essential oils) for restricted materials having Standards and therefore necessary to be taken into account for determination of the maximum level:

Other source	Restricted material affected	Level of restricted material in other source (%)
Basil oil (Linalool type)	Eugenol Methyl eugenol	<15 < 6
Basil oil (Estragole type)	Eugenol Methyl eugenol	< 0.5 < 6
Bay oil	Eugenol Methyl eugenol	<56 < 4
Calamus oil	Methyl eugenol	< 1
Cananga oil	Eugenol Methyl eugenol	< 0.7 < 0.5
Carrot seed oil	Methyl eugenol	< 0.5
Cascarilla oil	Eugenol Methyl eugenol	< 0.3 < 1
Cassia oil	Cinnamic alcohol Cinnamic aldehyde Eugenol Methyl eugenol	< 1 < 90 < 0.5 < 0.1
Cinnamon bark oil	Cinnamic alcohol Cinnamic aldehyde Eugenol	< 0.2 < 75 < 6
Cinnamon leaf oil	Cinnamic alcohol Cinnamic aldehyde Eugenol	< 1 < 3 < 85
Citronella oil (Java)	Eugenol Methyl eugenol	< 1 < 0.2
Citronella oil (Sri Lanka)	Methyl eugenol	< 2
Clary sage (Salvia sclarea) oil	trans-2-Hexenal	< 0.1
Clove oil	Eugenol Isoeugenol Methyl eugenol	< 92 < 0.5 < 0.5
Davana oil	Eugenol	< 0.1
Estragon oil (Tarragon oil)	Eugenol Methyl eugenol	< 0.2 < 1.5
Hyssop oil	Methyl eugenol	< 1
Jasmine Sambac absolute	trans-2-Hexenal	< 0.1
Laurel oils	Eugenol	< 2
Laurel leaf (Laurus nobilis) oil	trans-2-Hexenal	< 0.1
Lemongras oil	Eugenol	< 0.3
Lovage leaf oil	Methyl eugenol	< 1.5
Mace oil	Eugenol Isoeugenol Methyl eugenol	<1.1 < 0.2 < 0.5
Myrtle oil	Eugenol	< 0.7
Nutmeg oil	Eugenol	< 0.6

	Isoeugenol Methyl eugenol	< 1.0 < 1
Origanum (Spanish)	Eugenol Isoeugenol	< 0.3 < 0.3
Peppermint (*Mentha piperita)* oil	trans-2-Hexenal	< 0.1
Petitgrain Mandarin oil	Methyl N-methylanthranilate	< 60%
Pimenta berry oil	Eugenol Isoeugenol Methyl eugenol	< 85 < 1.0 < 15
Pimenta leaf oil	Eugenol Isoeugenol Methyl eugenol	< 85 < 1.0 < 15
Rose oil (different types)	Eugenol Methyl eugenol	< 1.5 < 3.5
Savory winter oil	Methyl eugenol	< 1
Spearmint (Mentha spicata) oil	trans-2-Hexenal	< 0.1
Spike Lavender oil	Eugenol	< 0.1
Styrax oil	Cinnamic alcohol Cinnamic aldehyde	< 54 < 1.1
Styrax resin	Cinnamic alcohol	< 3.5
Tagetes	Eugenol	< 0.2
Tarragon oil	See: Estragon oil	
Tolu balsam extract	Cinnamic alcohol Cinnamic aldehyde Eugenol	< 0.6 < 1.7 < 0.1
Violet leaf (Viola odorata) absolute	trans-2-Hexenal	< 0.1
Ylang extra super	Eugenol Isoeugenol	< 0.5 < 0.5
Ylang extra	Eugenol Isoeugenol	< 0.5 < 0.5
Ylang type I	Eugenol Isoeugenol	< 0.5 < 0.5
Ylang type II	Eugenol Isoeugenol	< 0.5 < 0.5
Ylang type III	Eugenol Isoeugenol	< 0.5 < 0.5