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PRTD/AR/**PF:03**	2	31 March 2021	**REPORT OF ACTION RESEARCH**

1.	**Action Research Project No.**	AR/0003
2.	**Title of the Action Research Project**	List of Prohibited and Restricted Fragrance (Synthetic and Natural) Materials
3.	**Name & Designation of Officer**	NISHA BURA, Scientist 'D'
4.	**Employee No.**	064211
5.	**Deptt./BO/RO & Place of Posting**	JKBO, NRO, Jammu
6.	**Date of Approval of the Project**	26 March 2020
7.	**Objective of the Project**	Fragrances are unique and complex combinations of natural and/or synthetic ingredients which are extensively used in a large no of sectors, like, cosmetics, food and beverages, house hold cleaning products, toys, aromatherapy etc. With the increase in use of fragrances, their safety is also becoming the issue of concern as some fragrance materials may be carcinogenic, allergic, and toxic at different levels. Therefore, lots of research and development needs to be carried out for safe use of fragrances. In India, presently, no such list of restricted or prohibited fragrance materials is available covering all the sectors. One of the main objectives of BIS is promotion of safety in connection with any goods, article, process, system or service to protect the interests of consumers. Therefore, in view of the above, it is important to formulate an Indian Standard for restricted and prohibited list of essential oils and fragrance materials in Indian Context due to the following reasons: i) BIS has published an Indian Standard, IS 4707 (Part 2) which lists prohibited and restricted ingredients for use in cosmetics also including fragrance ingredients. However, scope of IS 4707 (Part 2) is restricted only to Cosmetics. No such list is available for other important user industries such as Household care products like soaps and detergents, intimate hygiene products, air care products, food and beverages, pharmaceuticals, Aromatherapy products etc. ii) Also the ingredients listed in IS 4707 (Part 2) are in thousands and mainly cover cosmetic ingredients. Therefore, it is very difficult and cumbersome for the F&F Industry to understand and use such list. iii) Quality/ toxicity/ allergic nature of fragrance materials especially essential oils depends on a no. of factors such as the cultivation style, climate, exposure quantity of EOs,

		allegiance level of the population exposed. Therefore, blanket adoption of European Union List/IFRA list etc. is not possible. There are some incidences where some ingredients which are listed in restricted group are expected not to fall under such Indianized Category.
8.	**Report of Action Research Activities**	Please see **Annex I** for detailed Report
9.	**Conclusion and Recommendations**	***The lists of prohibited/restricted fragrance ingredients is applicable for use in cosmetics, house hold items, toys, cleaning agents, air fresheners, aromatherapy and other general purposes. It is not intended for pharmaceuticals, food (including tobacco) and beverages applications.*** The lists may be considered by the Technical Committee for formulation of Indian Standards based on it.
10.	**Relevance of the Project to BIS**	The outcome of the Project will be an Indianized List of restricted and Prohibited Fragrance Materials which will finally result in the formulation of Indian Standard on the subject. This standard intern will provide a robust system to BIS and regulator in promoting use of Safe and Quality Fragrances in the Country. It will also support the Fragrance and Flavour Industry by providing them a level playing field.
11.	**Any other information relevant to the Project**	-

(Nisha Bura)
Sc. D, JKBO

Head JKBO

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ANNEX I

REPORT OF ACTION RESEARCH

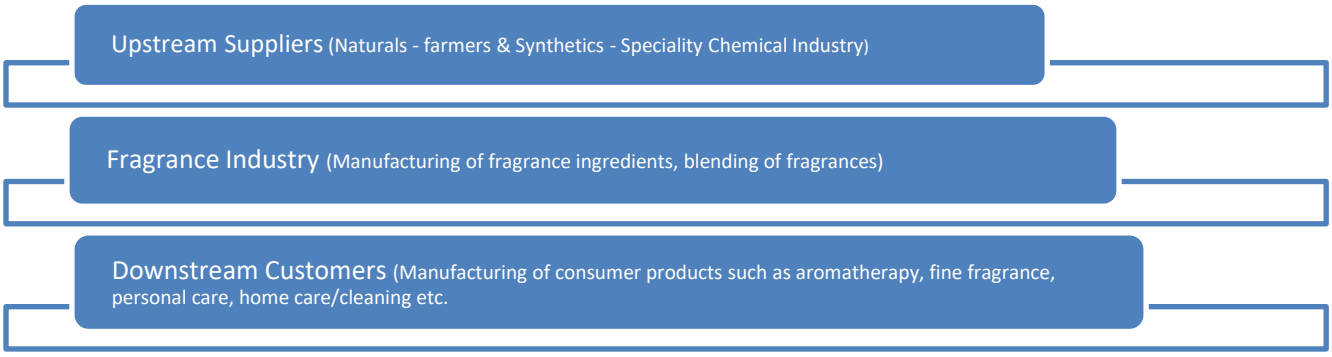
List of Prohibited and Restricted Fragrance (Synthetic and Natural) Materials

BACKGROUND OF THE PROJECT

Fragrances are unique and complex combinations of natural and/or synthetic ingredients which are extensively used in a large number of sectors, like, cosmetics, toiletries, pharmaceuticals, food and beverages, house hold cleaning products, toys, aromatherapy etc. Now a days, fragrances are the key derives for the brands. Therefore, the fragrance market share is also expected to grow exponentially.

Essential oils are mainly the products of distillation. With around 1.87 million USD export in FY17-18 and with increase in area of aromatic cultivation and up-gradation of technology for its processing, India has huge export potential for Essential Oils.

Value chain of Fragrance Industry



With the increase in use of fragrances, their safety is also becoming the issue of concern as some fragrance materials may be carcinogenic, allergic, and toxic at different levels. Thus, their quality testing, risk/toxicity assessments etc. essentially need to be carried out before introducing them in the market. Further, standards and regulations also need to be in place to ensure safety of these products and to stop unethical/ false/ unsafe/ spurious/ adulterated fragrances containing products coming to the market.

In India, presently, no such list of restricted or prohibited fragrance materials is available. BIS has published an Indian Standard, IS 4707 (Part 2) which lists prohibited and restricted ingredients for use in cosmetics also including fragrance ingredients. This standard is in line with the European Union Regulation (EC) No 1223/2009. At international level, some organizations like IFRA and RIFM have published standards on restricted and prohibited Fragrance materials.

There is a strong need to published a separate Indian Standard for restricted and prohibited list of essential oils and fragrance materials in Indian Context due to the following reasons:

iv) Scope of IS 4707 (Part 2) is restricted only to Cosmetics. No such list is available for other important user industries such as Household care products like soaps and detergents, intimate hygiene products, air care products, food and beverages, Aromatherapy products etc.

v) Also the ingredients listed in IS 4707 (Part 2) are in thousands and mainly cover cosmetic ingredients. Therefore, it is very difficult and cumbersome for the F&F Industry to understand and use such list.

vi) Quality/ toxicity/ allergic nature of fragrance materials especially essential oils depends on a number of factors such as the cultivation style, climate, exposure quantity of EOs, allegiance level of the population exposed. Therefore, blanket adoption of European Union List/IFRA list etc. is not possible. There are some incidences where some ingredients which are listed in restricted group are expected not to fall under such Indianized Category.

In view of the above, it is very important to gather the data (Intl. as well as Indian) and prepare an Indian Standard on the subject in context with Indian scenario. This will provide a robust system to the Regulators in ensuring the consumer safety in regard to fragrance materials. It will also support the Fragrance and Flavour Industry by providing them a level playing field.

RESEARCH METHODOLOGY

- Collection of information regarding International (e.g. IFRA) / Regional (e.g. EC 1223/2009) / National (Canada/China/USA etc.) Regulations/ Standards for fragrance materials
- Review of such regulations and Standards
- Preparation of Comparative Chart
- Collection of data from with Industry Associations and Major industries
- Interaction with CSIR Laboratories Working in this domain, for example, IITR Lucknow, IIM Jammu, IHBT Palampur etc.
- Preparation of Restricted/Prohibited Lists of fragrance ingredients (with no dispute)
- Preparation of list fragrance ingredients where further research needs to be carried out

WORK CARRIED OUT

- ***Preparation of First Draft of Prohibited Fragrance Ingredients***

In present scenario, it is of utmost importance to formulate Indian Standard for prohibited fragrance ingredients keeping consumer safety in mind and also seeing Government's initiative to promote export for which it needs to be a quality product.

As per the methodology, undersigned worked on the PROHIBITED INGREDIENTS and prepared the Comparison of the List of ingredients which have been prohibited by International Fragrance Association (IFRA) with European Regulations and Indian Standard IS 4707 (Part 2) along with the cause for prohibition **(Please *see* Annex A).**

- ***Comments Solicited from Stakeholders***

The draft list was then circulated through email and whatsapp to the stakeholders including members of Fragrance and Flavours Sectional Committee, PCD 18; CSIR Laboratories such as CSIR-Indian Institute of Toxicology Research, Indian Institute of Integrative Medicine, Central Institute of Medicinal and Aromatic Plants, Institute of Himalayan Bioresource Technology, other Govt. Institutes such as Forest Research Institute, Centre for Aromatic Plants, Fragrance and Flavour Development Centre, Fragrance industry associations namely, Fragrances and Flavours Association of India , Essential Oil Association of India, User Industry Associations namely, The Confederation of Indian

Industry, Indian Beauty and Hygiene Association, Federation of Indian Chambers of Commerce and Industry and a large number of national as well as international individual industries to solicit comments.

A large number of comments were received from various organizations including both technical and non-technical comments which were compiled **(Please *see* Annex B).**

Most of industries and user industry associations have appreciated the step taken by BIS to prepare such list for India keeping consumer safety in Mind. Fragrances and Flavours Association of India (FAFAI), however, has been constantly opposing formulation of any prohibited and restricted list of ingredients for India without giving any technical comments on the ingredients listed in the draft.

- ***Consultation with the Stakeholders***

A WebEx Meeting for Stakeholder's consultation on the Draft List of prohibited ingredients for use in fragrances was organized by undersigned on 7 December 2020 under the chairmanship of Dr. Ram Vishwakarma, Retd. Director, CSIR-IIIM Jammu and Chairman PCD 18. The meeting was attended by more than 60 experts from almost all sectors of F&F including Govt. Labs and Industry association. The eminent experts included Director Institute of Science, Director CAP, Director FFDC, senior scientists from IITR, CIMAP, IHBT, President FAFAI, President EOAI, General Secretary IBHA, Chair of expert Panel FICCI, prominent manufacturers and user industries.

During the meeting, the FAFAI has STRONGLY OPPOSED the daft list of Prohibited Ingredients circulated by BIS stating that the list is IFRA List and may have commercial interest of some international Companies who are members of IFRA. Therefore, it should not be made basis for the Indian List. FAFAI asked for study data for this list. Further, they said that Indian Skin type is different from Foreigner's skin and we not have such negative effects of these fragrance materials on our skin. Some members informed that the list includes about 50 ingredients which have already been banned by European Union and many of the ingredients are banned based on their toxicity and carcinogenicity and not skin sensitization for which Skin Type is immaterial. Also most of data on individual ingredients is available on Internet itself. It was also proposed to finalize the ingredients which are already prohibited by other Countries in their regulations and also by Indian Industry and take up other ingredients at next level for discussion or studies.

The Meeting was concluded by the Chairman stating that both Positive and Negative Lists of ingredients for use in Fragrance are need for India. The draft list prepared by BIS needs to be re-looked into along with the data. However, if the ingredients have already been prohibited in some regulations that may be taken as such. He further, opined to constitute a Panel of 5-6 Government Laboratories to study the List and the international data available and submit comments. The Panel may propose the ingredients for which further studies are needed to be carried out in the country.

- ***List of Prohibited/Restricted Fragrance Ingredients for use in cosmetics, house hold items, toys, cleaning agents, air fresheners, aromatherapy and other general purposes***

**It is not intended for pharmaceuticals, food (including tobacco) and beverages applications*

Based on the discussions held during the Stakeholder consultation and conclusion remarks by the Chairman, PCD 18 the following lists have been prepared along with master list (89 ingredients) **(Please *see* Annex C):**

i) **Ingredients prohibited both by EU and IFRA** (50 ingredients) for use in cosmetic applications only. (The supporting safety assessment data for these EU prohibited ingredients is majorly available in public domain).
ii) **Ingredients prohibited by IFRA and not by EU** (37 ingredients)
iii) **Restricted and specified ingredients by EU and/or IFRA** (22 ingredients)
iv) **Ingredients with insufficient data** (22 ingredients) (reason being these ingredients were primarily prohibited by IFRA due to safety reasons and eventually industries stopped using these, therefore EU may not have taken these for further studies/prohibitions)
v) **Ingredients which are prohibited by EU and not by IFRA** (5 ingredients)
vi) **List of Naturals and Natural Isolates Prohibited/Restricted** (26 ingredients)

- ***International Status on the Subject***

ISO TC 54 'Essential Oils' has not published any list of Generally Recognized As Safe (GRAS) and Generally Not Recognized As Safe (GNRAS) list of fragrance ingredients as the scope of this technical Committee is limited to Essential Oils (Natural Fragrance Materials) specifications and their test methods only. European Union has Cosmetics Regulations, EC 1223/2009 in place which also covers fragrances for use in cosmetics. The Fragrance industry globally is majorly self-regulated and follows IFRA Standards through Certificates of Conformity to the IFRA Standards. In Asia, Association of Southeast Asian Nations (ASEAN) also refers to IFRA standards for fragrances

Meanwhile undersigned has interacted with International Fragrance Association (IFRA) for other internationally available guidelines/ regulations for fragrances. Based on the inputs received from President IFRA, it has been noted that the list has been wholly/partially adopted by Latin America, New Zealand, China, Argentina, Brazil, Paraguay, Uruguay for use in cosmetic applications only.

CONCLUSION AND RECOMMENDATIONS

As the proposed list of 89 prohibited/restricted fragrance ingredients (or their groups) is largely based on IFRA and EU and being followed internationally, it is proposed to adopt the list as Indian Standard to provide a robust system to the Regulators for ensuring the consumer safety in regard to fragrance materials and to promote exports.

Proper Safety Studies need to be carried out for the ingredients with insufficient data if these are intended to be used in India.

SOURCES OF THE INFORMATION

1. IFRA Standards - 49th Amendment
2. Cosmetics Regulations of EU, EC 1223/2009
3. Technical information provided by IFRA and M/s. Ultra Intl.
4. Technical information gathered from Comments received from various stakeholders and during the national seminar on 'Creating Awareness on Standardization Among Essential Oil Industry' jointly organized by BIS and CSIR-IIIM Jammu on 07 March 2019
5. Interactions with members of Fragrance and Flavour Sectional Committee, PCD 18 during Technical Committee Meetings
6. Visit to Industry (Ultra Intl., Sahibabad)
7. Magazines and Publications of Indian Industry Associations such as FAFAI and EOAI
8. Internet

KEY STRING	AMENDMENT	INGREDIENT NAME	CAS NUMBER(S)	SYNONYMS	IFRA STANDARD RECOMMENDATION	IFRA STANDARD CRITICAL EFFECT	EU COSMETICS REGULATION BAN (ANNEX II)	EU COSMETICS REGULATION RESTRICTION (ANNEX III)	EU REACH RESTRICTED	COMMENT	IS 4707 Part II (INDIA) - For use in Cosmetics	Remarks
IFRA_STD_153	40	Hydroquinone monomethyl ether	150-76-5	4-Hydroxyanisole p-Hydroxyanisole 4-Methoxyphenol p-Methoxyphenol Phenol, p-methoxy-	PROHIBITION	DEPIGMENTATION	Not listed	Listed in Annex III Cosmetic regulation	NO	Restriction applies to artificial nail system	Restricted	Not much in use
IFRA_STD_160	40	6-Methylcoumarin	92-48-8	2H-1-Benzopyran-2-one, 6-methyl 6-Methyl-2h-1-benzopyran-2-one 6-Methylbenzopyrone 6-Methyl coumarin 6-Methyl-cis-o-coumarinic lactone 5-Methyl-2-hydroxyphenylpropenoic acid lactone Toncarine (commercial name)	PROHIBITION	PHOTOSENSITIZATION	Not listed	Listed in Annex III Cosmetic regulation	NO	Restriction applies to Oral care products	Restricted	Not much in use

IFRA_STD_110	40	cis-and trans-Asarone	2883-98-9 5273-86-9	2883-98-9: α-Asarone Asarone ((E)- and (Z)-2,4,5-Trimethoxypropen-1-yl benzene) trans-Asarone Benzene, 1,2,4-trimethoxy-5-(1-propenyl)-, (E)- trans-Isoasarone 5273-86-9: ß-Asarone cis-ß-Asarone Benzene, 1,2,4-trimethoxy-5-(1-propenyl)-, (Z)- cis-Isoasarone	PROHIBITION_RESTRICTION	CARCINOGENICITY	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	This is anyway not much in use and cant find commercially available. Unless fractionated from Natural i.e Calamus Oil
IFRA_STD_106	43	Allyl heptine carbonate	73157-43-4	Allyl 2-octynoate 2-Octynoic acid 2-Propenyl ester	PROHIBITION	DERMAL_SENS	Not listed	Listed in Annex III Cosmetic regulation	NO		Restricted	Not much in use
IFRA_STD_108	43	Amylcyclopentenone	25564-22-1	2-Cyclopenten-1-one, 2-pentyl- 2-Pentyl-2-cyclopentenone 2-Pentylcyclopent-2-en-1-one	PROHIBITION	DERMAL_SENS	Not listed	Listed in Annex III Cosmetic regulation	NO		Restricted	Not much in use
IFRA_STD_164	43	p-Methylhydrocinnamic aldehyde	5406-12-2	Benzenepropanal, 4-methyl p-Methyldihydrocinnamaldehyde p-Methylhydrocinnamaldehyde 3-(4-Methylphenyl)propanal 3-p-Tolylpropionaldehyde	PROHIBITION	DERMAL_SENS	Not listed	Listed in Annex III Cosmetic regulation	NO		Restricted	Not much in use

IFRA_STD_145	43	Geranyl nitrile	5146-66-7 5585-39-7 31983-27-4	3,7-Dimethyl-2,6-octadienenitrile Geranonitrile (isomer unspecified) 2,6-Octadienenitrile, 3,7-dimethyl- Citranile (commercial name) Citralva (commercial name) Geranitrile (commercial name)	PROHIBITION	GENOTOXICITY	Not listed		YES	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally	Not listed	It is a concern for India, as it is still in use and is also manufactured in India.
IFRA_STD_170	44	Musk xylene (1-tert-Butyl-3,5-dimethyl-2,4,6-trinitrobenzene)	81-15-2	2,4,6-Trinitro-1,3-methyl-5-tert-butylbenzene Benzene, 1-(1,1-dimethylethyl)-3,5-dimethyl-2,4,6-trinitro- Musk xylol	PROHIBITION	VPVB	Not applicable		YES	Banned Listed in Annex III Cosmetic regulation; Restriction applies to all cosmetic products with an exception to oral care products	Restricted	It is a concern for India
IFRA_STD_124	40	Costus root oil, absolute and concrete	8023-88-9	Costus root essential oil, absolute and concrete (Saussurea lappa Clarke) Oils, costus Saussurea lappa root oil Spiral flag oil	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	It is a concern for India, as it is still in use and is also manufactured in India.

IFRA_STD_168	40	Musk ambrette (1-tert-Butyl-2-methoxy-4-methyl-3,5-dinitrobenzene)	83-66-9	Benzene, 1-(1,1-dimethylethyl)-2-methoxy-4-methyl-3,5-dinitro- 4-tert-Butyl-3-methoxy-2,6-dinitrotoluene 6-tert-Butyl-3-methyl-2,4-dinitroanisole 1-(1,1-Dimethylethyl)-2-methoxy-4-methyl-3,5-dinitrobenzene 2,6-Dinitro-3-methoxy-1-methyl-4-tert-butylbenzene 2,6-Dinitro-3-methoxy-4-tert-butyltoluene 2,4-Dinitro-3-methyl-6-tert-butylanisole	PROHIBITION	PHOTOSENS_NEUROTOX	YES		NO		Prohibited	It is a concern for India
IFRA_STD_097	49	Tagetes oil and absolute	91722-29-1 8016-84-0 91770-75-1	Prohibition of Tagetes erecta: Tagetes erecta L. Restriction and Specification of Tagetes patula and Tagetes minuta: Tagetes absolute (Tagetes patula L.) Tagetes patula absolute Tagetes patula, ext. Tagetes minuta absolute Tagetes oil	PROHIBITION_RESTRICTION_SPECIFICATION	PHOTOTOXICITY	Not listed		NO	Tagetes erecta should not be used as a fragrance ingredient in any finished product application. Only Tagetes patula and Tagetes minuta should be used as fragrance ingredients according to the Restriction in the regulation	Not listed	Tagetes Minuta is grown widely in India and its main use in Tabocco Flavouring and exports for fractionating natural Ocimene.

IFRA_STD_117	43	Bromostyrene	103-64-0	Benzene, (2-bromoethenyl)- α-Bromo-ß-phenylethylene ß-Bromostyrene ß-Bromovinylbenzene ω-Bromstyrene Bromstyrol Bromstyrolene	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	May be used, but should not be a concern
IFRA_STD_179	17	Safrole, Isosafrole and Dihydrosafrole	94-59-7 120-58-1 94-58-6	94-59-7: 1,3-Benzodioxole, 5-(2-propenyl)- 3,4-Methylene dioxyallylbenzene 4-Allyl-1,2-methylene dioxybenzene 5-Allyl-1,3-benzodioxole Safrol 120-58-1: 1,2-Methylenedioxy-4-propenylbenzene 1,3-Benzodioxole, 5-(1-propenyl)- 5-Prop-1-en-1-yl-1,3-benzodioxole Iso-safrole 94-58-6: 1,3-Benzodioxole, 5-propyl- 3,4-Methylenedioxypropylbenzene	PROHIBITION_RESTRICTION	CARCINOGENICITY	YES		YES	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally	Prohibited	Mainly used in tobacco flavourings
IFRA_STD_165	43	Methyl methacrylate	80-62-6	Methyl 2-methacrylate, 2-(methoxycarbonyl)-1-propene Methyl 2-methyl-2-propenoate 2-Propenoic acid, 2-methyl-, methyl ester MMA	PROHIBITION	DERMAL_SENS	Not listed		NO	CoRAP for Substance evaluation	Not listed	Not much in use

IFRA_STD_182	38	Toluene	108-88-3	Toluol Methylbenzol Methylbenzene	PROHIBITION_SPECIFICATION	LIVER_TOX	Not listed		NO	Restricted, as a substance or in mixtures in a concentration equal to or greater than 0,1 % by weight where the substance or mixture is used in adhesives or spray paints intended for supply to the general public.	Restricted	Not much in use
IFRA_STD_071	49	Peru balsam	8007-00-9	Balsam oil, Peru (Myroxylon pereirae Klotzsch) Balsams, Peru Myroxylon pereirae (Balsam Peru) oil Myroxylon pereirae (Balsam Peru) resin Myroxylon pereirae oil Peru balsam absolute Peru balsam anhydrol	PROHIBITION_RESTRICTION_SPECIFICATION	DERMAL_SENS_SYSTEMIC_TOX	YES		NO	Exudate & Crude are Probited whereas Myroxylon pereirae oil Peru balsam absolute Peru balsam anhydrol are Restricted	Prohibited / Restricted	Not manufactured in India, mainly imported
IFRA_STD_044	49	HICC	31906-04-4 51414-25-6	3 and 4-(4-Hydroxy-4-methylpentyl)cyclohex-3-ene-1-carbaldehyde; Lyral	RESTRICTED	DERMAL_SENS	YES		NO	HARMONIZED CLASSIFICATION SS 1A	Restricted	Still in use
IFRA_STD_156	43	Massoia bark oil	85085-26-3	Cryptocarya massoio oil Cryptocarya massoy bark extract Cryptocarya massoy, ext. Massoia bark oil (Cryptocarya massoio)	PROHIBITION	DERMAL_SENS	Not listed		NO		Not listed	Mostly used in flavours and for fractionation

IFRA_STD_120	38	Carvone oxide	33204-74-9	Carvone epoxide 1,6-Epoxy-p-menth-8-en-2-one 1-Methyl-4-(1-methylvinyl)-7-oxabicyclo[4.1.0]heptan-2-one 7-Oxabicyclo[4.1.0]heptan-2-one, 1-methyl-4-(1-methylethenyl)-	PROHIBITION	DERMAL_SENS	Not listed		NO		Not listed	Not much in use
IFRA_STD_123	40	Colophony	8050-09-7	Colophonium Rosin	PROHIBITION	DERMAL_SENS	Not listed		NO		Not listed	Not much in use
IFRA_STD_116	43	3-Bromo-1,7,7-trimethylbicyclo[2.2.1]heptane-2-one	76-29-9	Bicyclo[2.2.1]heptan-2-one, 3-bromo-1,7,7-trimethyl- 2-Bornanone, 3-bromo- 3-Bromobornan-2-one 3-Bromo-2-bornanone 3-Bromocamphor Camphor bromide Camphor, 3-bromo-	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use
IFRA_STD_122	43	Cinnamylidene acetone	4173-44-8	3,5-Hexadien-2-one, 6-phenyl- Methyl 4-phenyl-1,3-butadienyl ketone 1-Phenyl-3,5-hexadien-5-one 6-Phenyl-3,5-hexadien-2-on	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use

IFRA_STD_127	43	Musk KS (1,3-Dibromo-2-methoxy-4-methyl-5-nitrobenzene)	62265-99-0	Benzene, 1,3-dibromo-2-methoxy-4-methyl-5-nitro- Bromorose 1,3-Dibromo-2-methoxy-5-nitro-6-methylbenzene 2,4-Dibromo-3-methoxy-6-nitrotoluene 2,6-Dibromo-3-methyl-4-nitroanisole 6-Nitro-2,4-dibromo-3-methoxytoluene Musk KS (commercial name)	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use
IFRA_STD_128	43	2,2-Dichloro-1-methylcyclopropylbenzene	3591-42-2	Benzene, (2,2-dichloro-1-methylcyclopropyl)-	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use
IFRA_STD_137	43	Esters of 2-Nonynoic acid (except Methyl octine carbonate)	e.g.: 10031-92-2	Ethyl 2-nonynoate Ethyl octine carbonate Ethyl octyne carbonate 2-Nonynoic acid, ethyl ester	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use

IFRA_STD_138	43	Esters of 2-Octynoic acid (except Methyl heptine carbonate)	e.g.: 10484-32-9 10519-20-7	10484-32-9: Amyl heptine carbonate 2-Octynoic acid, pentyl ester Pentyl 2-octynoic acid Vert de violette 10519-20-7: Ethyl heptine carbonate Ethyl 2-octynoate 2-Octynoic acid, ethyl ester	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use
IFRA_STD_144	43	Furfurylidene acetone	623-15-4	3-Buten-2-one, 4-(2-furanyl)- Furfuralacetone 4-(2-Furyl)-3-buten-2-one	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use
IFRA_STD_166	43	3-Methyl-2(3)-nonenenitrile	53153-66-5	2-Nonenenitrile, 3-methyl- Citgrenile (commercial name)	PROHIBITION	DERMAL_SENS	Not listed		NO		Restricted	Not much in use
IFRA_STD_174	43	Phenyl acetone	103-79-7	Benzyl methyl ketone Methyl benzyl ketone 2-Propanone, 1-phenyl	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use

IFRA_STD_175	43	Phenyl benzoate	93-99-2	Benzoic acid, phenyl ester	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use
IFRA_STD_180	43	Santolina oil	84961-58-0	Not applicable.	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO		Not listed	Not much in use
IFRA_STD_115	44	Boldo oil	8022-81-9	Boldo leaf oil (Peumus boldus Mol.) Oil, boldo leaf Peumus boldus oil	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	In Cosing with CAS 84649-96-7	Not listed	Not much in use
IFRA_STD_129	47	2,4-Dienals	764-40-9 142-83-6 80466-34-8 5910-85-0 30361-28-5 6750-03-4 2363-88-4 13162-46-4 21662-16-8 25152-84-5 30361-29-6 4313-03-5	Including but not limited to: 2,4-Pentadienal 2,4-Hexadienal 2,4-Heptadienal 2,4-Octadienal 2,4-Nonadienal 2,4-Decadienal 2,4-Undecadienal 2,4-Dodecadienal trans,trans-2,4-Decadienal trans,trans-2,4-Undecadienal 2,4-Heptadien-1-al (including all geometric isomers)	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use
IFRA_STD_136	48	2,4-Dodecadien-1-ol, (2E, 4E)	18485-38-6	2,4-Dodecadien-1-ol	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use

IFRA_STD_147	48	2,4-Hexadien-1-ol	111-28-4 17102-64-6	1-Hydroxy-2,4-hexadiene Hexa-2,4-dien-1-ol Sorbic alcohol Sorbyl alcohol Hexadienol (commercial name)	PROHIBITION	INSUFFICIENT_DATA	Not listed		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use
IFRA_STD_157	48	Massoia lactone	54814-64-1 51154-96-2	2-Decen-1,5-lactone (-)-2-Decenoic acid, 5-hydroxy, δ-lactone (R)-5,6-Dihydro-6-pentyl-2H-pyran-2-one 5,6-Dihydro-6-pentyl-2H-pyran-2-one 5-Hydroxy-2-decenoic acid δ-lactone 2H-Pyran-2-one, 5,6-dihydro-6-pentyl-, (R)- Massoi lactone	PROHIBITION	DERMAL_SENS	Not listed		NO		Not listed	Mostly used in flavours
IFRA_STD_133	38	3,7-Dimethyl-2-octen-1-ol	40607-48-5	6,7-Dihydrogeraniol 2-Octen-1-ol, 3,7-dimethyl	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_135	38	Diphenylamine	122-39-4	Benzeneamine, N-phenyl-	PROHIBITION	TOX_TETRATOG	YES		YES	Banned under the PIC Regulation	Prohibited	Not much in use

IFRA_STD_140	38	Ethylene glycol monoethyl ether and its acetate	110-80-5 (ether) 111-15-9 (acetate)	110-80-5 (ether): Ethylene glycol ethyl ether 2-Ethoxyethanol Ethanol, 2-ethoxy- Cellosolve Oxitol 111-15-9 (acetate): Ethylene glycol ethyl ether acetate 2-Ethoxyethyl acetate Ethyl cellosolve acetate Ethanol, 2-ethoxy-, acetate 1-Acetoxy-2-ethoxyethane	PROHIBITION	REPRO_TOX	YES		YES	Recommended for inclusion in the REACH Authorisation List. Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally	Prohibited	Not much in use

IFRA_STD_141	38	Ethylene glycol monomethyl ether and its acetate	109-86-4 (ether) 110-49-6 (acetate)	109-86-4 (ether): Ethylene glycol methyl ether 2-Methoxyethanol Ethanol, 2-methoxy- Methyl cellosolve 110-49-6 (acetate): Ethylene glycol methyl ether acetate 2-Methoxyethanol acetate 2-Methoxyethyl acetate Methyl cellosolve acetate Ethanol, 2-methoxy-, acetate	PROHIBITION	REPRO_TOX	YES		YES	Recommended for inclusion in the REACH Authorisation List. Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixture	Prohibited	Not much in use
IFRA_STD_151	38	Hydroabietyl alcohol, Dihydroabietyl alcohol	13393-93-6 26266-77-3 1333-89-7	Abitol (mixture of different hydroabietyl alcohols)	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_103	40	Acetyl ethyl tetramethyl tetralin (AETT)	88-29-9	7-Acetyl-6-ethyl-1,1,4,4-tetramethyl-1,2,3,4-tetrahydronaphthalene Ethanone, 1-(3-ethyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)- Versalide (commercial name)	PROHIBITION	NEUROTOXICITY	YES		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Not listed	Not much in use
IFRA_STD_104	40	Acetyl isovaleryl (5-Methyl-2,3-hexanedione)	13706-86-0	2,3-Hexanedione, 5-methyl- Acetyl isopentanoyl	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_105	40	Alantroot oil	97676-35-2	Alantroot oil (Inula helenium) Elecampane oil Inula helenium oil	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use

IFRA_STD_109	40	Anisylidene acetone	943-88-4	3-Butene-2-one, 4-(4-methoxyphenyl) ester 4-(p-methoxyphenyl)-3-butene-2-one Methyl p-methoxycinnamyl ketone	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_113	40	Benzylidene acetone	122-57-6	4-Phenyl-3-buten-2-one 3-Buten-2-one, 4-phenyl- Benzilideneacetone Methyl styryl ketone	PROHIBITION	DERMAL_SENS	YES		NO		Not listed	Not much in use
IFRA_STD_118	40	p-tert-Butylphenol	98-54-4	4-tert-Butylphenol 4-(1,1-Dimethylethyl) phenol 1-Hydroxy-4-tert-butylbenzene Phenol, 4-(1,1-dimethylethyl)- Phenol, p-tert-butyl	PROHIBITION	DERMAL_SENS_DERMAL_DEPIGMENTATION	YES		NO		Prohibited	Not much in use
IFRA_STD_130	40	Diethyl maleate	141-05-9	2-Butenedioic acid (2Z)-, diethyl ester Ethyl maleate Maleic acid, diethyl ester	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_131	40	2,4-Dihydroxy-3-methylbenzaldehyde	6248-20-0	Benzaldehyde, 2,4-dihydroxy-3-methyl- 4-Formyl-2-methylresorcinol	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_132	40	4,6-Dimethyl-8-tert-butylcoumarin	17874-34-9	2H-1-Benzopyran-2-one, 8-(1,1-dimethylethyl)-4,6-dimethyl- Butolia	PROHIBITION	PHOTOSENSITIZATION	YES		NO		Prohibited	Not much in use
IFRA_STD_134	40	Dimethyl citraconate	617-54-9	2-Butenedioic acid, 2-methyl-, dimethyl ester, (2Z)- Dimethyl methyl maleate Methylmaleic acid, dimethyl ester	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use

IFRA_STD_139	40	Ethyl acrylate	140-88-5	Ethyl propenoate 2-Propenoic acid, ethyl ester	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_142	40	Fig leaf absolute	68916-52-9	Ficus carica absolute Fig leaf absolute (Ficus carica)	PROHIBITION	DERMAL_SENS_PHOTOX	YES		NO		Prohibited	Not much in use
IFRA_STD_146	40	trans-2-Heptenal	18829-55-5	beta-Butylacrolein 3-Butylacrolein (E)-2-Hepten-1-al 2-Heptenal, (E)-	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_148	40	Hexahydrocoumarin	700-82-3	2H-1-Benzopyran-2-one, 3,4,5,6,7,8-hexahydro- Coumarin, hexahydro- Coumarin, 3,4,5,6,7,8-hexahydro- 1-Cyclohexene-1-propanoic acid, 2-hydroxy-, d-lactone 3,4,5,6,7,8-Hexahydro-2H-1-benzopyran-2-one	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_149	40	trans-2-Hexenal diethyl acetal	67746-30-9	1,1-Diethoxy-trans-2-hexene (E)-2-Hexenal diethyl acetal 2-Hexene, 1,1-diethoxy-, (2E)-	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_150	40	trans-2-Hexenal dimethyl acetal	18318-83-7	1,1-Dimethoxy-trans-2-hexene 2-Hexene, 1,1-dimethoxy-, (2E)-	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_152	40	Hydroquinone monoethyl ether	622-62-8	1-Ethoxy-4-hydroxybenzene p-Ethoxyphenol Phenol, 4-ethoxy- 4-Ethoxyphenol	PROHIBITION	DEPIGMENTATION	YES		NO		Prohibited	Not much in use

IFRA_STD_155	40	6-Isopropyl-2-decalol	34131-99-2	Decahydro-6-isopropyl-2-naphthol Decahydro-6-(1-methylethyl)-2-naphthalenol 6-Isopropyl-2-decahydronaphthalenol 6-Isopropyldecalol 2-Naphthalenol, decahydro-6-(1-methylethyl)- Decatol	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_159	40	α-Methyl anisylidene acetone	104-27-8	1-(p-Methoxyphenyl)-1-penten-3-one p-Methoxystyryl ethyl ketone alpha-Methylanisalacetone α-Methylanisalacetone 1-(4-Methoxyphenyl)-1-penten-3-one 1-Penten-3-one, 1-(4-(methoxyphenyl)- Ethone (commercial name)	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_161	40	7-Methylcoumarin	2445-83-2	2H-1-Benzopyran-2-one, 7-methyl- 7-Methyl-2-H-1-benzopyran-2-one	PROHIBITION	DERMAL_SENS_PHOTOSENS	YES		NO		Prohibited	Not much in use
IFRA_STD_162	40	Methyl crotonate	623-43-8	2-Butenoic acid, methyl ester, (E)- Methyl trans-2-butenoate	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use

IFRA_STD_163	40	4-Methyl-7-ethoxycoumarin	87-05-8	2H-1-Benzopyran-2-one, 7-ethoxy-4-methyl- Coumarin, 7-ethoxy-4-methyl- 7-Ethoxy-4-methylcoumarin 4-Methyl-7-ethoxybenzopyrone Maraniol (commercial name)	PROHIBITION	PHOTOSENSITIZATION	YES		NO		Prohibited	Not much in use
IFRA_STD_171	40	Nitrobenzene	98-95-3	Benzene, nitro Nitrobenzol Mirbane oil	PROHIBITION	ACUTE_TOX_SKIN_TOX	YES		YES	Restricted for consumer use if benzene content > 0,1%	Prohibited	Not much in use
IFRA_STD_172	40	2-Pentylidene cyclohexanone	25677-40-1	Cyclohexanone, 2-pentylidene-	PROHIBITION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_107	43	Allyl isothiocyanate	57-06-7	AITC Allyl isosulfocyanate Allyl thiocarbonimide 1-Propenal, 3-isothiocyanato- 2-Propenyl isothiocyanate	PROHIBITION	INSUFFICIENT_DATA	YES		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Prohibited	Not much in use
IFRA_STD_126	43	Musk alpha (1,3-Dibromo-2-methoxy-4-nitro-5-(1,1-dimethylethyl)-6-methyl-benzene)	63697-53-0	Musk alpha Benzene,1,3-dibromo-5-(1,1-dimethylethyl)-2-methoxy-4-methyl-6-nitro-	PROHIBITION	INSUFFICIENT_DATA	YES		NO	CAS number not in ECHA DB	Not listed	Not much in use
IFRA_STD_121	43	Chenopodium oil	8006-99-3	American wormseed oil Chenopodium ambrosioides L. var anthelminticum	PROHIBITION	INSUFFICIENT_DATA	YES		?	CAS number not in ECHA DB	Prohibited	Not much in use

IFRA_STD_167	43	Moskene (1,1,3,3,5-Pentamethyl-4,6-dinitroindane)	116-66-5	1H-Indene, 2,3-dihydro-1,1,3,3,5-pentamethyl-4,6,-dinitro-	PROHIBITION	INSUFFICIENT_DATA	YES		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Prohibited	Not much in use
IFRA_STD_169	43	Musk tibetene (1-tert-Butyl-2,6-dinitro-3,4,5-trimethylbenzene)	145-39-1	Benzene, 1-(1,1-dimethylethyl)-3,4,5-trimethyl-2,6-dinitro-	PROHIBITION	INSUFFICIENT_DATA	YES		NO	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.	Prohibited	Not much in use
IFRA_STD_178	45	Quinoline	91-22-5	1-Benzazine 2,3-Benzopyridine Benzo(b)pyridine Chinoleine Leucoline Quinoleine	PROHIBITION	CARC_MUTA	YES (CMR OMNIBUS)		YES	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally	Not listed	Not much in use

IFRA_STD_143	48	Furfuryl alcohol	98-00-0	2-Furancarbinol 2-Furanmethanol Furfuralcohol Furfuryl alcohol α-Furylcarbinol 2-Furylcarbinol 2-Furylmethanol 2-Hydroxymethylfuran	PROHIBITION	INSUFFICIENT_DATA	YES (CMR OMNIBUS)		NO	Harmonized CAR 2	Not listed	
IFRA_STD_112	38	Benzyl cyanide	140-29-4	Benzeneacetonitrile Benzylnitrile Phenylacetonitrile Phenyl acetyl nitrile	PROHIBITION_RESTRICTION	CYANIDE_RELEASE	YES		NO	GHS classification: Fatal if inhaled	Prohibited	Not much in use
IFRA_STD_158	43	7-Methoxycoumarin	531-59-9	2H-1-Benzopyran-2-one, 7-methoxy- Herniarin	PROHIBITION_RESTRICTION	DERMAL_SENS_PHOTOSENS	YES		NO		Prohibited	Not much in use
IFRA_STD_083	49	Verbena oil and absolute (Lippia citriodora Kunth.)	8024-12-2 85116-63-8	Prohibition of Verbena oils: Lippia citriodora oils Restriction of Verbena absolutes: Lippia citriodora absolute Verbena absolute Aloysia triphylla absolute Lippia triphylla absolute Verbena triphylla absolute Zappania citrodora absolute	PROHIBITION_RESTRICTION	DERMAL_SENS	YES		NO	All prohibited except absolute (restricted)	Prohibited/ Restricted	Not much in use
IFRA_STD_154	49	Isophorone	78-59-1	2-Cyclohexen-1-one, 3,5,5-trimethyl- Isoacetophorone 3,5,5-Trimethyl-2-cyclohexen-1-one	PROHIBITION_RESTRICTION	INSUFFICIENT_DATA	YES		NO		Prohibited	Not much in use

IFRA_STD_078	49	Styrax	8046-19-3 8024-01-9 94891-27-7 94891-28-8 101227-15-0	Prohibition of the crude material: Styrax crude gums Restriction and Specification of the distillates: Styrax resin Styrax oil Styrax oil, rectified Styrax oil, pyrogenated, distilled	PROHIBITION_RESTRICTION_SPECIFICATION	DERMAL_SENS	Not listed		NO		Restricted	Mostly being imported, Used as resinoid
IFRA_STD_114	47	Birch wood pyrolysate	8001-88-5 84012-15-7 85940-29-0 68917-50-0	Prohibition of the crude material: Birch tar oil, crude Specification for the distillates: Birch tar oil dephenolated Birch tar oil rectified Essence bouleau dephenolisée Essence bouleau (Goudron) rect.	PROHIBITION_SPECIFICATION	CARC_GEN_PAH	Not listed		NO		Not listed	Not much in use
IFRA_STD_119	47	Cade oil	8013-10-3 90046-02-9	Prohibition of the crude material: Juniper tar Specification for the distillates: Juniper tar oil Juniperus oxycedrus oil	PROHIBITION_SPECIFICATION	CARC_GEN_PAH	Not listed		NO	Registered under REACH by SARL DISTILLERIE DES CEVENNES. Use in Cosmetics and fragrances is included	Not listed	Not much in use

IFRA_STD_125	4	Cyclamen alcohol	4756-19-8	3-(4-Isopropylphenyl)-2-methylpropan-1-ol 3-(p-Isopropyl)phenyl-2-methyl-1-propanol Benzenepropanol, .β.-methyl-4-(1-methylethyl)-	PROHIBITION_SPECIFICATION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_111	38	Benzene	71-43-2	Benzol	PROHIBITION_SPECIFICATION	CARCINOGENICITY	YES		YES	Restricted as CMR 1A for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally	Prohibited	Not much in use
IFRA_STD_176	40	Pseudoionone (2,6-Dimethylundeca-2,6,8-trien-10-one)	141-10-6	Citrylideneacetone 6,10-Dimethyl-3,5,9-undecatrien-2-one 3,5,9-Undecatrien-2-one, 6,10-dimethyl-	PROHIBITION_SPECIFICATION	DERMAL_SENS	YES		NO		Prohibited	Not much in use

IFRA_STD_177	44	Pseudo methylionones	26651-96-7 72968-25-3 1117-41-5	2,6-Dimethyldodeca-2,6,8-trien-10-one 7,11-Dimethyl-4,6,10-dodecatrien-3-one 7,11-Dimethyldodeca-4,6,10-trien-3-one 4,6,10-Dodecatrien-3-one, 7,11-dimethyl- 3,6,10-Trimethylundeca-3,5,9-trien-2-one	PROHIBITION_SPECIFICATION	DERMAL_SENS	YES		NO		Prohibited	Not much in use
IFRA_STD_181	10	Savin oil	8024-00-8	Juniperus Sabina L. (prohibition) Juniperus phoenicea L. (specification)	PROHIBITION_SPECIFICATION	ACUTE_TOX	Yes for Juniperus Sabina under other CAS n°		NO	CAS n° in Coising 90046-04-1	Prohibited	Not much in use
NO IFRA STD		1,2-benzenedicarboxylic acid; di-C6-8-branched alkylesters, C7-rich	71888-89-6				CMR OMNIBUS		YES		Not listed	Not much in use

NO IFRA STD		ACETALDEHYDE	75-07-0				YES		YES	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally	Not listed	Used in flavours
NO IFRA STD		STYRENE	100-42-5				YES (CMR OMNIBUS)		YES	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally	Not listed	Not much in use

NO IFRA STD		THFA	97-99-4	Tetrahydrofurfuryl alcohol			YES (CMR OMNIBUS)		NO	HARMONIZED CLASSIFICATION CMR 2 (No RIFM id.)	Not listed	Not much in use
NO IFRA STD		KARANAL	---						NEXT AUTHORISATION LIST	vPvB	Not listed	Not much in use

Comments Received on the Draft List of Prohibited Ingredients for use in Fragrances:

Sl. No.	Commentator	Comments
1	Professor Alok Dhawan Director, CSIR-IITR	I strongly feel that the health and safety of the customers / consumers of fragrance materials is paramount. The developed countries have taken this matter very seriously and have imposed a ban for several compounds which have adverse health effects. To begin with, I suggest that we follow the IFRA standards for the compounds for which data is available. Where the data is not available, BIS should start a programme to generate data from GLP certified labs such as CSIR-IITR. Thanks once again for this initiative which is much needed and timely.
2	Prof Anil Kumar Tripathi Director, Institute of Science Professor, School of Biotechnology Banaras Hindu University	I have come across your mail regarding formulation of Indian standard on "Negative and restricted list of Ingredients for use in Fragrance" by F & F Sectional Committee, PCD 18 of Bureau of Indian Standards. In my capacity as former Director of CSIR-CIMAP, Lucknow (2014-2019) and as Mission Director of CSIR Aroma Mission, I had the opportunity of interacting with farmers, representatives of Aroma industry, scientists working on essential oils and aromatic plants. I also had the opportunity to meet and address members of Essential Oil Association of India. Hence, based on my experience and analysis I would like to submit the following points for the consideration of the committee, 1. While making any policy regarding essential oils and their ingredients long term interests of farmers have to be kept in mind. As a promoter or facilitator of cultivation of aromatic crops and their different varieties, CSIR institutes such as CSIR-CIMAP, CSIR-IIIM, CSIR-IHBT, CSIR-NEIST etc have made herculean efforts to motivate farmers to take up cultivation of aromatic crops. It is very difficult to persuade farmers to adopt new crops unless they are given assurances for the sale of their produce at fair price. If for some reason, the essential oil produced by farmers is not sold or not sold at fair price, they get dissuaded and stop cultivating aromatic crops. It becomes difficult for scientific organizations to convince them to start the cultivation of aromatic crops. 2. Essential oil industry depends on farmers who take the risk of cultivating aromatic crops, but the industry often refrains from giving the desired level of guarantee or satisfactory support to the farmers. 3. The consumers of the fragrant material are the drivers of the F & F industry. Therefore, confidence and safety of the consumers is of utmost importance. It is the bounden responsibility of the Government to ensure that ingredients used in the fragrant material are safe for the consumers. Therefore, the role of BIS assumes extreme importance on hand to ensure consumer safety but on the other to also see that the farmers involved in the cultivation of aromatic crops do not suffer for no fault of theirs. 4. In the interest of the consumers of fragrant material it is an urgent need to issue the list of banned or restricted ingredients. If in India, we do not have a dedicated institution or mechanism to evaluate the safety of aroma ingredients, we have to rely, accept and enforce the information generated by unbiased agencies of International repute at least till such time we have our own database on the aroma ingredients used by Indian Industry. 5. It should also be the responsibility of the concerned ministry, and specifically BIS, to closely interact with the scientific organizations and laboratories which are involved in the development of new varieties of aromatic crops to permit cultivation of only such varieties whose essential oils do not contain banned ingredients or have them within the permissible limits. This will ensure the interest of the farmers, industry as well as the consumer. 6. It is likely that Indian skin and its sensitivity might be different than those of European or American counterparts. But, it will be improper and undesirable to ignore the safety data experimentally obtained by RIFM and being advocated by IFRA. The concerned Ministry should establish a dedicated institute or allocate this task to an already established Institute like CSIR-IITR for evaluating the safety of aroma ingredients which are frequently used in the fragrant material marketed in India. This suggested Institute should adopt the same methods as used by RIFM for evaluating safety. If the safety data obtained by the Indian Institute on Indian subjects and Indian skin on the debated fragrant material match with that already obtained by RIFM, then we need not have to test the safety of thousands of aroma ingredients which have already been tested by

		RIFM. 7. For exporting essential oils and aroma ingredients to Europe, USA and other countries, we have no option but to follow the IFRA guidelines, which are well accepted and developed in an unbiased and transparent manner. I very sincerely feel that we have to think with a holistic and nationalistic viewpoint to ensure sustainability of all concerned including Government, consumer, scientists, industry and farmers. I have shared my above viewpoint with the welfare and long-term sustainability of all concerned stakeholders of aroma industry in India.
3	Dr. G S Ranade, Independent Expert and Ex- Chairman PCD 18	Many of the ingredients which are banned or restricted by International bodies are mentioned in your proposed list as "not listed", "not much in use", "concern for India", "Concern in India but still used and manufactured "used only in flavours" Should be examined for their safety. Above remarks are unacceptable in safety standards even for India. BIS should ensure the safety data before such Items are permitted for use. If data is not available it should be generated by Govt Laboratories or other Institutes, before **IS 4707** is adopted for inclusion for Frag and flav. Till such time International Specifications should be adopted, (IFRA, EU etc) It is high time Indian Toxicological/Safety data should be obtained by BIS, may be in the form of Negative list. Remarks such as above "not in much use", "Concern for India", are unacceptable.
4	Rishabh C. Kothari, President, FAFAI	We are extremely surprised to read your proposed list based on recommendations of a private body set up by 7 multinational companies which are being discussed without receiving or discussing any **evidence on the basis of which such a list has been prepared**. As far as we know, no such document or evidence for each of these proposed 'restricted items' is available in the public domain and if they are, they need to be **verified and validated by 3rd party independent research organisations** in the country. At a time when our honorable Prime Minister has been talking about '**Atmanirbhan Bharat**' and '**Vocal for Local**', the casual manner in which unsubstantiated lists are sought to be imposed on Indian industry, affecting millions of farmers, producers and consumers **without detailed discussion and scientific scrutiny** is regrettable to say the least. The BIS was formed for the 'harmonious development of the activities of standardization, marking and quality certification of goods and for matters connected therewith or incidental thereto' and this effort undermines the very basis with which BIS has been formed. Please also find attached the 1st Edition of the **INDIAN FRAGRANCES AND FLAVOURS REFERENCE LIST OFINGREDIENTS**, a **positive list of F&F Ingredients** used in India published by the **Fragrances and Flavours Association of India (FAFAI)** and the **Fragrance and Flavour Development Centre (FFDC), a Government of India body** within inspiration and guidance from **Dr. Ram Vishwakarma ji** for your reference and information. This publication has been **endorsed by our honourable Prime Minister Shri Narendra Modi ji, our honourable MSME Minister Shri Nitin Gadkari ji as well the Chairman of BIS Shri Pramod Kumar Tiwari ji** amongst others**.** This list is subject to both review and revision and we shall endeavour to continue to add newer molecules being introduced on an annual basis. If any individual or body has any concerns about any of the ingredients listed in this document, we are happy to take cognisance of their research on the subject which will also be investigated at our end in **accredited 3rd party independent scientific institutions**. As mentioned earlier, nothing can and should be done without adequate scientific scrutiny. We therefore request you to kindly forward all the relevant information regarding all the products which are being sought to be put on some negative list for us to study and investigate before we can offer any comments on such a proposal.
5	Malathi Narayanan, Secretary General, IBHA	Hope you are well. At the outset & on behalf of IBHA, we wish to express our sincere thanks to you and your team at BIS for undertaking this very important and much needed task of compiling the list of Prohibited Ingredients for use in fragrances, across different sectors. Ingredient safety is of utmost importance to the consumer, and, BIS has always strived to bring in the best in class safety standards based on sound science. In the same spirit, IBHA recommends BIS to adopt the IFRA position and reflect in full the details of the

		IFRA standard. The IFRA Standards ban, limit or set criteria for the use of certain ingredients, **based on scientific evidence and consumer insight** and is also backed by RIFM. The RIFM Database is the most comprehensive, worldwide source of toxicology data, literature and general information on fragrance and flavour raw materials. It is to be noted that as per IFRA the guidance, ban – restriction is for ingredients when used as a fragrance. Hence, this should be clearly mentioned in the BIS standard. Besides, it is best for BIS to adopt such an international position that is accepted globally by many countries and companies. Many of our member companies have mandated compliance to IFRA standards for the fragrances that they use. This will also be critical for Indian companies that export their fragrances or fragrance ingredients, as it will add to their credibility in the global market. Hence, adopting IFRA standards will provide an important guideline for India fragrance manufacturers to match up to international standards in terms of safety. As regards our specific feedback to this list, please see our comments in the attached excel sheet.
6	Dr Renuka Thergaonkar	Greetings, After going through the list we suggest that the proposed list needs to be verified before putting it directly in the standards. Here you will see that these types of standards developed by IFRA have been adopted after conducting studies mostly on the European skin and not on the Indian skin. As per attached literature every skin type reacts in a different ways to different chemicals and different climatic conditions like UV rays eg. Asian skin has other mechanisms than the presence of melanin to protect against UV irradiation. This could be dietary but possibly it is related to the induction of p53 and DNA repair enzymes. Secondly as you know the synergistic approach of combination of ingredients affects the absorption or ability of the ingredient to react with the skin. So if we are using any particular perfumery ingredient in combination with film formers than probably the effect of that ingredient will differ on the skin if we mix the same with penetration enhancer ingredients. In case of penetration enhancer the perfumery ingredient may penetrate inside the skin and give higher sensitization as compared to an ingredient where no penetration happens and the product does not interact with the skin. With respect to essential oils the essential oils contain a combination of chemical constituents which balances the activity of each other in the oil and gives a synergistic effect in totality with minimum side effects. But if we separate out each ingredient than the efficacy of that particular active constituent will be totally different from that in the oil. Then when we apply it on different skin types its ability to react will differ. So if we consider these aspects are the results given by IFRA completely reliable? Shouldn't we do our own tests on Indian skin to validate our data and then include in the standards? We request you to look into this aspect and then include it in BIS.
7	Dr. SV Shukla, FFDC Director	I fully agree with Dr Renuka Thergaonkar' s comments. We need to move ahead accordingly.
8	Bhuvana Nageshwaran Director- F & F, Ultra Intl	First of all, we would really want to extend our sincere thanks to you and your team at BIS for undertaking this very pertinent task of compiling the list of Prohibited Ingredients for use of fragrances, across different sectors. As most of the prohibited ingredients mentioned in this list are in line with global safety standards, hence this list will serve as an important guideline for our Indian fragrance manufacturers as they are constantly striving to match up with globally acceptable standards. Most of the Indian end users and customers also ask for fragrance materials that are in line with credible international standards thus preparing such a list is certainly a good starting point towards establishing our own Indian national standards for safe use of fragrances, much in alignment with international standards. Moreover, compilation of this list has also taken into account the ingredients that are prohibited by IFRA which is the only world wide body which undertakes elaborate studies to set comprehensive safety standards for fragrance ingredients and is also backed by RIFM. As IFRA standards are well recognized by end users globally therefore adoption of these prohibited fragrance ingredients in our country will also help to boost Indian exports of fragrance ingredients. As regards our specific feedback to this list, we would like to point out that following four ingredients should be deleted from this list as these are banned by the EU Cosmetic Regulation but can be used in other applications; therefore our recommendation is that

		these four materials should be covered under IS 4707 Part II as prohibited ingredients : · HICC · Acetaldehyde · Styrene · Tetrahydrofurfuryl alcohol Regarding Karanal – it's been already included in the REACH authorisation list (Annex XIV) and will be prohibited for use in Cosmetic products from 27 August, 2023. [Refer to Commission Regulation (EU) 2020/171]. We have highlighted these five items in yellow in attached list for your easy reference. Following further deliberations and final adoption, once these prohibited ingredients are purged from our domestic production cycles, this will also grant further credibility to Indian fragrance products in global markets.
9	Dr. Vijay Bambulkar IFRA's Independent Expert on the Task Force of FICCI for F&F	I like to suggest to add flavour in the title List of Prohibited and Restricted Fragrance (Synthetic and Natural) Materials" as there two tobacco flavoring materials are included in this list. Also may like to add "Aromatherapy products, tobacco products etc.
10	Vijayan Padmanabhan ITC LSTC |	Have just one comment on **Karnal** appearing in this list. It is my understanding that while Karanal was notified as a Substance of Very High Concern (SVHC) in the REACH program by ECHA on 12th June 2015, however, as on date karnal doesn't feature in the latest EU banned/restricted list. Are there any plans of this ingredient being banned after the REACH inclusion by EU/SCCS? Not sure on that either. Secondly, even while some concerns have been raised around environmental persistence, probably it is still not being raised for a ban due to the low volumes (<10 tonnes)? Given the above position internationally, should the inclusion of this ingredient in BIS negative list be accordingly calibrated to follow post a consensus in this regard is arrived internationally?
11	G Rajaraman Takasago International India Pvt Ltd, Chennai	We would like to extend our sincere thanks to BIS for compiling this list of Prohibited Ingredients for use of fragrances, across a wide range of applications as listed in your email. We strongly support such a harmonised assessment of fragrance ingredients, taking into account the international standards of IFRA as this will help towards establishing our own national standards that are aligned with global markets. On the industry side, we have been part of the global application of safe use program, the IFRA Standards. We would also recommend that BIS reference other governmental bodies globally, as their work too has been based on sound scientific assessment of the materials. We would like to recommend clarification on some of the materials on the proposed BIS list: a. For addition of Foot Note on the specification for Pseudoionone to include acceptance level of 2% as impurity in ionones. b. Prohibition on only the specific type of ingredients: i. Peru balsam crude & exudate (CAS no. 8007-00-9) ii. Verbena Oil iii. Styrax Crude Gums iv. Birch wood-Crude v. Cade Oil Crude For the materials where there might be questions on the rationale and eventually space to additional evidence, the industry would like to propose for BIS to collaborate with reputable organization in India for example, Indian Institute of Toxicology (IITR) for more scientific research or testing in line with agreed methodologies, and decide later on the listing of those materials in BIS listing. Lastly, we would like to thank BIS for requesting inputs from the industry for developing such safety standards. We truly appreciate your collaborative approach and look forward to our continuous engagement towards achieving the common objective of safeguarding consumer and environmental interests at large.
12	Arshdeep Joshi, Senior Regulatory Manager SAMEA, GIUVADAN	We would like to extend our gratitude for the compilation of this much-required list of prohibited materials for the Indian Fragrance Industry. This shall serve the purpose of aligning the Indian Fragrance Industry to global practices of safety. It is also the right step to ensure that the consumers in India have the same level of safe fragrance ingredients as a consumer in any other part of the world. Regarding inputs on the list, while there are mostly editorial comments, some of the

		names of the materials have been modified to indicate only the prohibited material & remove the restriction/specification materials. We would like to highlight that ingredients like HICC which is banned for use in cosmetics should be addressed through the IS 4707 instead of this list. Furthermore, we would recommend the addition of a footnote, similar to the IS 4707 exemption for impurities. Our comments have been highlighted in purple in the attached file.
13	Dr. Geetanjali G. Ranade, Quintessence Fragrances Ltd	Received your list regarding fragrance ingredients (restricted n prohibited by IFRA/ EU). Many of the restricted/prohibited ingredients are used in India. If BIS is sure that they can be safely used in India, this list should be accompanied by supportive safety documents, under Indian conditions. Till such time we need to follow International Regulations.
14	K S Hariharakrishnan Symrise Private Limited	With reference to restricted ingredients list we would like to our point as per below details. We are in agreement with the list and we see Lyral is listed in the proposal. we would like to inform that Lyral is only banned in cosmetics in EU, ASEAN and Korea, hence we would strongly recommend to remove Lyral from the home care prohibition list.
15	Kavita Tarade, Firmenich	Our sincere thanks for compiling this list of Prohibited Ingredients for use of fragrances, across a wide range of applications as listed in your email. We strongly support such a harmonised assessment of fragrance ingredients, taking into account the international standards of IFRA as this will help towards establishing our own national standards that are aligned with global markets. On the industry side, we have been part of the global application of safe use program, the IFRA Standards. We would also recommend that BIS reference other governmental bodies globally, as their work too has been based on sound scientific assessment of the materials. We would like to recommend clarification on some of the materials on the proposed BIS list: a. For addition of Foot Note on the specification for Pseudoionone to include acceptance level of 2% as impurity in ionones. b. Prohibition on only the specific type of ingredients: 1. Peru balsam crude & exudate (CAS no. 8007-00-9) 2. Verbena Oil 3. Styrax Crude Gums 4. Birch wood Crude 5. Cade Oil Crude Attached our initial comments. For the materials where there might be questions on the rationale and eventually space to additional evidence, the industry would like to propose for BIS to collaborate with reputable organization in India for example, Indian Institute of Toxicology (IITR) for more scientific research or testing in line with agreed methodologies, and decide later on the listing of those materials in BIS listing. Lastly, we would also like to thank BIS for requesting inputs from the industry for developing such safety standards. We truly appreciate your collaborative approach and look forward to our continuous engagement towards achieving the common objective of safeguarding consumer and environmental interests at large.
16	Chetan Bijesure Assistant Secretary General FICCI	We at FICCI would like to share that a negative list of prohibited ingredients, for a start, is a better way to ensure the safety of finished products, that consumers use daily. This is an approach that has been taken by regulatory bodies globally for fragrances. However, the negative list that has been developed needs to be discussed extensively with the industry stakeholders, hence we request you to call a meeting to discuss the same urgently. There could be interested parties, who may have data on some of these ingredients. A time frame can be provided to test some of these products in recognized national or international institutions. If at the end of this period, the list should be implemented, with any corrections incorporated. This period, will also enable industry to substitute these materials in their formulations. Such an approach will ensure fair and equitable treatment for all, and would enable the setting up of world class standards, so that domestic consumers have safe products. In addition, it will help the rapid growth of exports.
17	Dr. Hema Lohani Centre for Aromatic	We feel that by imposing IFRA guidelines, several essential oils/ fragrance and flavor ingredients which come from farmers produce will also be banned. This would affect

	Plants (CAP) Dehradun (Uttarakhand) INDIA	Indian farmers' economy and welfare. As you know that our Prime minister is also very much concerned towards welfare of farmers by increasing their economy. In India, we have various research institutes which are capable enough to conduct research and generate data on essential oils and fragrance materials in Indian environment. Therefore, in view of welfare of Indian farmers, industries and consumers, we strongly suggest that we should develop our own data for Indian Standards for the same.
18	Dr. Avani Mainkar Chief Scientific Officer S H KELKAR AND COMPANY LIMITED	As many members have pointed out, following IFRA norms 'as is' for BIS may neither be practical in the Indian scenario nor scientific. The objective of the regulation should be to create a "level of safety for consumers" that is possible to govern on the fragrance oil with simple analytical techniques such as those that regulators can routinely use and check for compliance through government labs. The major points of difference between the IFRA recommendations and what we should be recommending for forming the BIS list is mentioned below. These take into account the practical realities of how the industry works and an understanding of the government labs wherein these products will eventually be tested. 1. IFRA restrictions apply to final products vs our recommendation should be to apply any restriction to the fragrance oil only; as fragrance manufacturers, we only have control on our fragrance formula and not on finished goods. Justification: • We have no control on the levels of the fragrance used by the end product manufacturers. So, if a fragrance is designed with an acceptable level of restricted ingredient for use in 1 category, it is possible that it is used at a higher level than recommended or used in another category by the end product manufacturer where it does not meet the norms. This is a common occurrence in the industry, which as fragrance manufacturers we have no control on. It is also common for end product manufacturers to not disclose the level of fragrance used in their products for confidentiality purpose. • We also have no control on any other materials added to the end product. Thus, if the end product is tested and found to be non compliant wrt any ingredient, it cannot be ascertained whether the ingredient is present from the fragrance or added externally. For ex, if a soap is tested and found to contain musk xylol, it could have been added externally or be present from any other additive. • There is also a large fragrance market in India where the end use is "not known" or cannot be tracked as the product will be reblended by multiple vendors before use. In this case, the restriction basis 'end use' will be ineffective. • Any restrictions on the end products should be governed by respective end product regulations ex cosmetics regulations for cosmetic category etc. 2. IFRA Prohibited by Restriction, i.e. not to be added intentionally, but allowed to a certain limit as occurring from natural sources. Our recommendation should be to allow a minimum level irrespective of the source. Justification: • The notion of restricted to add but can be present naturally is inherently dubious from a scientific safety basis. If a material is ok to add as a part of an essential oil ex asarole from calamus oil, it is difficult to understand why the same material at same levels would be unsafe if added as synthetic material. It is advisable to put in a regulation that allows these upto a certain ppm level irrespective of the source. This is more logical and scientific as it would not be possible to ascertain whether it is added intentionally or not. In such cases, it would be better to keep a limit of the material in the fragrance oil, rather than restricting basis the source, as the guideline to not add externally cannot be governed in practice. 3. IFRA Prohibited, i.e not allowed at all vs our recommendation should be to keep a minimum limit in the fragrance oil. Justification: • As analytical techniques get more and more sophisticated it will be possible to find in PPB or even PPT levels of certain materials which are "banned" , "prohibited" and the fragrance manufacturer will then be liable to this breach of regulation. Hence it is practical to define acceptable level of concentration which the fragrance

		manufacturer is able to control. For example: Toluene traces will be found in almost all fragrances which have any benzyl group product such as benzyl acetate. Hence, a limit of toluene in final oil of NMT 100 ppm is a far more practical strategy than to say its is "prohibited" . • Another practical issue is the traceability of bases used in multiple levels of usage in the industry. For eg the products containing certain old musk which have been banned, can still be found in the market although new manufacture of these musks has been stopped for many years now. In such cases keeping a NMT 100 ppm limt rather than "zero" serves a purpose to allow small inadvertent usage without creating regulatory hurdles. • Any specific known toxins can be further specified to lower level ex NMT 1ppm

S.No.		KEY STRING	AMENDMENT	INGREDIENT NAME	CAS NUMBER(S)	SYNONYMS	IFRA STANDARD RECOMMENDATION	INDIAN STANDARD RECOMMENDATION	FOOTNOTE	IFRA STANDARD CRITICAL EFFECT	EU COSMETICS REGULATION BAN (ANNEX II)	EU COSMETICS REGULATION RESTRICTION (ANNEX III)	IS 4707 Part II (INDIA) - For use in Cosmetics	COMMENT BY IFRA
1	3A	IFRA_STD_110	40	trans-Asarone*	2883-98-9	2883-98-9: α-Asarone Asarone ((E)- and (Z)-2,4,5-Trimethoxypropen-1-yl benzene) trans-Asarone Benzene, 1,2,4-trimethoxy-5-(1-propenyl)-, (E)- trans-Isoasarone	PROHIBITION_RESTRICTION	PROHIBITION	On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils, extracts and absolutes), exposure to this substance from the use of these oils and extracts (e.g. Calamus oils) is regarded acceptable as long as the level of cis- and trans-Asarone in the finished consumer product does not exceed 100ppm (0.01%).	CARCINOGENICITY	Not listed		Not listed	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

2	3B	IFRA_STD_110	40	cis-Asarone*	5273-86-9	5273-86-9: ß-Asarone cis-ß-Asarone Benzene, 1,2,4-trimethoxy-5-(1-propenyl)-, (Z)- cis-Isoasarone	PROHIBITION_ RESTRICTION	PROHIBITION	On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils, extracts and absolutes), exposure to this substance from the use of these oils and extracts (e.g. Calamus oils) is regarded acceptable as long as the level of cis- and trans-Asarone in the finished consumer product does not exceed 100ppm (0.01%).	CARCINOGENICITY	Not listed		Not listed	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

3	9	IFRA_STD_124	40	Costus root oil, absolute and concrete	8023-88-9	Costus root essential oil, absolute and concrete (Saussurea lappa Clarke) Oils, costus Saussurea lappa root oil Spiral flag oil	PROHIBITION	PROHIBITION		DERMAL_SENS	YES		Prohibited	
4	11A	IFRA_STD_097	49	Tagetes erecta oil and absolute	90131-43-4 8016-84-0	Prohibition of Tagetes erecta: Tagetes erecta L. Tagetes oil	PROHIBITION_ RESTRICTION_ SPECIFICATION	PROHIBITION		PHOTOTOXICITY	YES		Not listed	Tagetes erecta should not be used as a fragrance ingredient in any finished product application. Only Tagetes patula and Tagetes minuta should be used as fragrance ingredients according to the Restriction in the regulation

5	13A	IFRA_STD_179	17	Safrole	94-59-7	94-59-7: 1,3-Benzodioxole, 5-(2-propenyl)- 3,4-Methylene dioxyallylbenzene 4-Allyl-1,2-methylene dioxybenzene 5-Allyl-1,3-benzodioxole Safrol	PROHIBITION_RESTRICTION	PROHIBITION	Safrole except for normal content in the natural essences used and provided the concentration does not exceed: 100 ppm in the finished product, 50 ppm in products for dental and oral hygiene, and provided that Safrole is not present in toothpastes intended specifically for children Exposure to this substance from the use of essential oils, extracts and absolutes is regarded acceptable as long as the total concentration of Safrole,	CARCINOGENICITY	YES		Prohibited	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

6	13B	IFRA_STD_179	17	Isosafrole	120-58-1	120-58-1: 1,2-Methylenedioxy-4-propenylbenzene 1,3-Benzodioxole, 5-(1-propenyl)- 5-Prop-1-en-1-yl-1,3-benzodioxole Iso-safrole	PROHIBITION_RESTRICTION	PROHIBITION	Exposure to this substance from the use of essential oils, extracts and absolutes is regarded acceptable as long as the total concentration of Safrole, Isosafrole and Dihydrosafrole in the finished consumer product does not exceed 0.01%.	CARCINOGENICITY	Not listed		Not listed	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

7	13C	IFRA_STD_179	17	Dihydrosafrole	94-58-6	94-58-6: 1,3-Benzodioxole, 5-propyl- 3,4-Methylenedioxypropylbenzene 5-Propyl-1,3-benzodioxole	PROHIBITION_RESTRICTION	PROHIBITION	Exposure to this substance from the use of essential oils, extracts and absolutes is regarded acceptable as long as the total concentration of Safrole, Isosafrole and Dihydrosafrole in the finished consumer product does not exceed 0.01%.	CARCINOGENICITY	Not listed		Not listed	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

8	15A	IFRA_STD_071	49	Peru balsam crude*	8007-00-9	Balsam oil, Peru (Myroxylon pereirae Klotzsch) Balsams, Peru crude Myroxylon pereirae (Balsam Peru) resin	PROHIBITION_ RESTRICTION_ SPECIFICATION	PROHIBITION	Peru balsam crude should not be used as a fragrance ingredient for any finished product application. Restriction applies to Peru balsam extracts and distillates (Peru balsam oil, absolute and anhydrol).	DERMAL_SENS _SYSTEMIC_T OX	YES		Prohibited / Restricted	*Exudate & Crude are Probited whereas Myroxylon pereirae oil Peru balsam absolute Peru balsam anhydrol are Restricted
9	17	IFRA_STD_156	43	Massoia bark oil	85085-26-3	Cryptocarya massoio oil Cryptocarya massoy bark extract Cryptocarya massoy, ext. Massoia bark oil (Cryptocarya massoio)	PROHIBITION	PROHIBITION		DERMAL_SENS	Not listed		Not listed	

10	35	IFRA_STD_157	48	Massoia lactone	54814-64-1 51154-96-2	2-Decen-1,5-lactone (-)-2-Decenoic acid, 5-hydroxy, δ-lactone (R)-5,6-Dihydro-6-pentyl-2H-pyran-2-one 5,6-Dihydro-6-pentyl-2H-pyran-2-one 5-Hydroxy-2-decenoic acid δ-lactone 2H-Pyran-2-one, 5,6-dihydro-6-pentyl-, (R)- Massoi lactone	PROHIBITION	PROHIBITION		DERMAL_SENS	Not listed		Not listed	

11	72	IFRA_STD_112	38	Benzyl cyanide*	140-29-4	Benzeneacetonitrile Benzylnitrile Phenylacetonitrile Phenyl acetyl nitrile	PROHIBITION_RESTRICTION	PROHIBITION	*On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils and extracts), exposure to this substance from the use of these oils and extracts is not significant and the use of these oils is authorized as long as the level of Benzyl cyanide in the finished product does not exceed 0.01% (100 ppm)	CYANIDE_RELEASE	YES		Prohibited	GHS classification: Fatal if inhaled

12	73	IFRA_STD_158	43	7-Methoxycoumarin*	531-59-9	2H-1-Benzopyran-2-one, 7-methoxy-Herniarin	PROHIBITION_RESTRICTION	PROHIBITION	*On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils and extracts), exposure to this substance from the use of these oils and extracts is not significant and the use of these oils is authorized as long as the level of Benzyl cyanide in the finished product does not exceed 0.01% (100 ppm)	DERMAL_SENS_PHOTOSENS	YES		Prohibited	
13	74A	IFRA_STD_083	49	Verbena oil (Lippia citriodora Kunth.)*	8024-12-2 85116-63-8	Prohibition of Verbena oils: Lippia citriodora oils and derivatives	PROHIBITION_RESTRICTION	PROHIBITION	All prohibited except absolute (restricted)	DERMAL_SENS	YES		Prohibited/ Restricted	

14	75	IFRA_STD_154	49	Isophorone*	78-59-1	2-Cyclohexen-1-one, 3,5,5-trimethyl- Isoacetophorone 3,5,5-Trimethyl-2-cyclohexen-1-one	PROHIBITION_RESTRICTION	PROHIBITION	*On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils and extracts), exposure to this substance from the use of these oils and extracts is not significant and the use of these oils is authorized as long as the level of Isophorone in the finished product does not exceed 0.0013%	INSUFFICIENT_DATA	YES		Prohibited	Isophorone S.C. Gad, in Encyclopedia of Toxicology (Third Edition), 2014 Research paper from public domain

15	76A	IFRA_STD_078	49	Styrax crude*	8024-01-9 101227-15-0	Prohibition of the crude material: Styrax crude gums	PROHIBITION_ RESTRICTION_ SPECIFICATION	PROHIBITION	*Crude gums of Liquidambar styraficula L. var. macrophylla or Liquidambar orientalis Mill. should not be used as fragrance ingredients for any finished product application. Only extracts or distillates (resinoids, absolutes and oils), prepared from exudations of Liquidambar styraciflua L. var. macrophylla or Liquidambar orientalis Mill., can be used.	DERMAL_SENS	Not listed		Restricted	

16	77A	IFRA_STD_114	47	Birch wood pyrolysate crude*	8001-88-5 84012-15-7 85940-29-0 68917-50-0	Prohibition of the crude material: Birch tar oil, crude	PROHIBITION_SPECIFICATION	PROHIBITION	*Crude birch wood (bark) pyrolysates (oils) derived by pyrolysis (destructive distillation) of the wood or bark of Betula pubescens, Betula pendula, Betula lenta or Betula alba should not be used as a fragrance ingredient for any finished product application. Only rectified (purified) Birch tar oils being in compliance with the limitations for polynuclear aromatic hydrocarbons (PAH).	CARC_GEN_PAH	Not listed		Not listed	

17	78A	IFRA_STD_119	47	Cade oil*	8013-10-3	Prohibition of the crude material: Juniper tar	PROHIBITION_SPECIFICATION	PROHIBITION	*Crude cade oil derived by pyrolysis of the wood and twigs of Juniperus oxycedrus L. should not be used as a fragrance ingredient for any finished product application. Only rectified (purified) cade oils being in compliance with the limitations for polynuclear aromatic hydrocarbons (PAH).	CARC_GEN_PAH	Not listed		Not listed	Registered under REACH by SARL DISTILLERIE DES CEVENNES. Use in Cosmetics and fragrances is included.
18	83A	IFRA_STD_181	10	Savin oil	8024-00-8 90046-04-1	Juniperus Sabina L. (prohibition)	PROHIBITION_SPECIFICATION	PROHIBITION		ACUTE_TOX	Yes		Prohibited	CAS n° in Coising 90046-04-1
19	30	IFRA_STD_180	43	Santolina oil	84961-58-0	Not applicable.	PROHIBITION	PROHIBITION		INSUFFICIENT_DATA	Not listed		Not listed	
20	31	IFRA_STD_115	44	Boldo oil	8022-81-9	Boldo leaf oil (Peumus boldus Mol.) Oil, boldo leaf Peumus boldus oil	PROHIBITION	PROHIBITION		INSUFFICIENT_DATA	Not listed		Not listed	In Cosing with CAS 84649-96-7
21	86	NO IFRA STD		STYRENE	100-42-5			PROHIBITION			YES (CMR OMNIBUS)		Not listed	HARMONIZED CLASSIFICATION CMR 2 (No RIFM id.)

22	1	IFRA_STD_153	40	Hydroquinone monomethyl ether	150-76-5	4-Hydroxyanisole p-Hydroxyanisole 4-Methoxyphenol p-Methoxyphenol Phenol, p-methoxy-	PROHIBITION	PROHIBITION		DEPIGMENTATION	Not listed	Listed in Annex III Cosmetic regulation Restriction applies to artificial nail system- 0.02%	Restricted	Restriction applies to artificial nail system
23	43	IFRA_STD_105	40	Alantroot oil	97676-35-2	Alantroot oil (Inula helenium) Elecampane oil Inula helenium oil	PROHIBITION	PROHIBITION		DERMAL_SENS	YES		Prohibited	
24	52	IFRA_STD_142	40	Fig leaf absolute	68916-52-9	Ficus carica absolute Fig leaf absolute (Ficus carica)	PROHIBITION	PROHIBITION		DERMAL_SENS_PHOTOX	YES		Prohibited	
25	65	IFRA_STD_107	43	Allyl isothiocyanate	57-06-7	AITC Allyl isosulfocyanate Allyl thiocarbonimide 1-Propenal, 3-isothiocyanato- 2-Propenyl isothiocyanate	PROHIBITION	PROHIBITION		INSUFFICIENT_DATA	YES		Prohibited	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

26	67	IFRA_STD_121	43	Chenopodium oil	8006-99-3	American wormseed oil Chenopodium ambrosioides L. var anthelminticum	PROHIBITION	PROHIBITION		INSUFFICIENT_DATA	YES		Prohibited	CAS number not in ECHA DB

S.No.	S.No. as per Master file	KEY STRING	AMENDMENT	INGREDIENT NAME	CAS NUMBER(S)	SYNONYMS	IFRA STANDARD RECOMMENDATION	FOOTNOTE	IFRA STANDARD CRITICAL EFFECT	EU COSMETICS REGULATION BAN (ANNEX II)	EU REACH RESTRICTED	Remarks	Remarks
1	10	IFRA_STD_168	40	Musk ambrette (1-tert-Butyl-2-methoxy-4-methyl-3,5-dinitrobenzene)	83-66-9	Benzene, 1-(1,1-dimethylethyl)-2-methoxy-4-methyl-3,5-dinitro- 4-tert-Butyl-3-methoxy-2,6-dinitrotoluene 6-tert-Butyl-3-methyl-2,4-dinitroanisole 1-(1,1-Dimethylethyl)-2-methoxy-4-methyl-3,5-dinitrobenzene 2,6-Dinitro-3-methoxy-1-methyl-4-tert-butylbenzene 2,6-Dinitro-3-methoxy-4-tert-butyltoluene 2,4-Dinitro-3-methyl-6-tert-butylanisole	PROHIBITION		PHOTOSENS_NEUROTOX	YES	NO	It is a concern for India	

2	11A	IFRA_STD_097	49	Tagetes erecta oil and absolute	90131-43-4 8016-84-0	Prohibition of Tagetes erecta: Tagetes erecta L. Tagetes oil	PROHIBITION_RESTRICTION_SPECIFICATION		PHOTOTOXICITY	YES	NO	Tagetes Minuta is grown widely in India and its main use in Tabocco Flavouring and exports for fractionating natural Ocimene.	Tagetes erecta should not be used as a fragrance ingredient in any finished product application. Only Tagetes patula and Tagetes minuta should be used as fragrance ingredients according to the Restriction in the regulation

3	13A	IFRA_STD_179	17	Safrole	94-59-7	94-59-7: 1,3-Benzodioxole, 5-(2-propenyl)- 3,4-Methylene dioxyallylbenzene 4-Allyl-1,2-methylene dioxybenzene 5-Allyl-1,3-benzodioxole Safrol	PROHIBITION_RESTRICTION	Safrole except for normal content in the natural essences used and provided the concentration does not exceed: 100 ppm in the finished product, 50 ppm in products for dental and oral hygiene, and provided that Safrole is not present in toothpastes intended specifically for children Exposure to this substance from the use of essential oils, extracts and absolutes is regarded acceptable as long as the total concentration of Safrole,	CARCINOGENICITY	YES	Prohibited	Mainly used in tobacco flavourings	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

4	15A	IFRA_STD_071	49	Peru balsam crude*	8007-00-9	Balsam oil, Peru (Myroxylon pereirae Klotzsch) Balsams, Peru crude Myroxylon pereirae (Balsam Peru) resin	PROHIBITION_RESTRICTION_SPECIFICATION	Peru balsam crude should not be used as a fragrance ingredient for any finished product application.	DERMAL_SENS_SYSTEMIC_TOX	YES	NO	Not manufactured in India, mainly imported	*Exudate & Crude are Probited whereas Myroxylon pereirae oil Peru balsam absolute Peru balsam anhydrol are Restricted
5	36	IFRA_STD_133	38	3,7-Dimethyl-2-octen-1-ol	40607-48-5	6,7-Dihydrogeraniol 2-Octen-1-ol, 3,7-dimethyl	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	
6	37	IFRA_STD_135	38	Diphenylamine	122-39-4	Benzeneamine, N-phenyl-	PROHIBITION		TOX_TETRATOG	YES	YES	Not much in use	Banned under the PIC Regulation

7	38A-38B	IFRA_STD_140	38	Ethylene glycol monoethyl ether and its acetate	110-80-5 (ether) 111-15-9 (acetate)	110-80-5 (ether): Ethylene glycol ethyl ether 2-Ethoxyethanol Ethanol, 2-ethoxy- Cellosolve Oxitol 111-15-9 (acetate): Ethylene glycol ethyl ether acetate 2-Ethoxyethyl acetate Ethyl cellosolve acetate Ethanol, 2-ethoxy-, acetate 1-Acetoxy-2-ethoxyethane	PROHIBITION		REPRO_TOX	YES	YES	Not much in use	Recommended for inclusion in the REACH Authorisation List. Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

8	39A-39B	IFRA_STD_141	38	Ethylene glycol monomethyl ether and its acetate	109-86-4 (ether) 110-49-6 (acetate)	109-86-4 (ether): Ethylene glycol methyl ether 2-Methoxyethanol Ethanol, 2-methoxy- Methyl cellosolve 110-49-6 (acetate): Ethylene glycol methyl ether acetate 2-Methoxyethanol acetate 2-Methoxyethyl acetate Methyl cellosolve acetate Ethanol, 2-methoxy-, acetate	PROHIBITION		REPRO_TOX	YES	YES	Not much in use	Recommended for inclusion in the REACH Authorisation List. Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixture
9	40A	IFRA_STD_151	38	Hydroabietyl alcohol,	13393-93-6	Hydroabietyl alcohol, Abitol (mixture of different hydroabietyl alcohols)	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	

10	41	IFRA_STD_103	40	Acetyl ethyl tetramethyl tetralin (AETT)	88-29-9	7-Acetyl-6-ethyl-1,1,4,4-tetramethyl-1,2,3,4-tetrahydronaphthalene Ethanone, 1-(3-ethyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)- Versalide (commercial name)	PROHIBITION		NEUROTOXICITY	YES	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
11	42	IFRA_STD_104	40	Acetyl isovaleryl (5-Methyl-2,3-hexanedione)	13706-86-0	2,3-Hexanedione, 5-methyl- Acetyl isopentanoyl	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	
12	43	IFRA_STD_105	40	Alantroot oil	97676-35-2	Alantroot oil (Inula helenium) Elecampane oil Inula helenium oil	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	

13	44	IFRA_STD_109	40	Anisylidene acetone	943-88-4	3-Butene-2-one, 4-(4-methoxyphenyl) ester 4-(p-methoxyphenyl)-3-butene-2-one Methyl p-methoxycinnamyl ketone	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	
14	45	IFRA_STD_113	40	Benzylidene acetone	122-57-6	4-Phenyl-3-buten-2-one 3-Buten-2-one, 4-phenyl- Benzilideneacetone Methyl styryl ketone	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	
15	46	IFRA_STD_118	40	p-tert-Butylphenol	98-54-4	4-tert-Butylphenol 4-(1,1-Dimethylethyl) phenol 1-Hydroxy-4-tert-butylbenzene Phenol, 4-(1,1-dimethylethyl)- Phenol, p-tert-butyl	PROHIBITION		DERMAL_SENS_DERMAL_DEPIGMENTATION	YES	NO	Not much in use	

16	47	IFRA_STD_130	40	Diethyl maleate	141-05-9	2-Butenedioic acid (2Z)-, diethyl ester Ethyl maleate Maleic acid, diethyl ester	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	
17	48	IFRA_STD_131	40	2,4-Dihydroxy-3-methylbenzaldehyde	6248-20-0	Benzaldehyde, 2,4-dihydroxy-3-methyl- 4-Formyl-2-methylresorcinol	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	
18	49	IFRA_STD_132	40	4,6-Dimethyl-8-tert-butylcoumarin	17874-34-9	2H-1-Benzopyran-2-one, 8-(1,1-dimethylethyl)-4,6-dimethyl- Butolia	PROHIBITION		PHOTOSENSITIZATION	YES	NO	Not much in use	
19	50	IFRA_STD_134	40	Dimethyl citraconate	617-54-9	2-Butenedioic acid, 2-methyl-, dimethyl ester, (2Z)- Dimethyl methyl maleate Methylmaleic acid, dimethyl ester	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	
20	51	IFRA_STD_139	40	Ethyl acrylate	140-88-5	Ethyl propenoate 2-Propenoic acid, ethyl ester	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	

21	52	IFRA_STD_142	40	Fig leaf absolute	68916-52-9	Ficus carica absolute Fig leaf absolute (Ficus carica)	PROHIBITION		DERMAL_SENS_PHOTOX	YES	NO	Not much in use	
22	53	IFRA_STD_146	40	trans-2-Heptenal	18829-55-5	beta-Butylacrolein 3-Butylacrolein (E)-2-Hepten-1-al 2-Heptenal, (E)-	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	
23	54	IFRA_STD_148	40	Hexahydrocoumarin	700-82-3	2H-1-Benzopyran-2-one, 3,4,5,6,7,8-hexahydro- Coumarin, hexahydro- Coumarin, 3,4,5,6,7,8-hexahydro- 1-Cyclohexene-1-propanoic acid, 2-hydroxy-, d-lactone 3,4,5,6,7,8-Hexahydro-2H-1-benzopyran-2-one	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	

24	55	IFRA_STD_149	40	trans-2-Hexenal diethyl acetal	67746-30-9	1,1-Diethoxy-trans-2-hexene (E)-2-Hexenal diethyl acetal 2-Hexene, 1,1-diethoxy-, (2E)-	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	
25	56	IFRA_STD_150	40	trans-2-Hexenal dimethyl acetal	18318-83-7	1,1-Dimethoxy-trans-2-hexene 2-Hexene, 1,1-dimethoxy-, (2E)-	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	
26	57	IFRA_STD_152	40	Hydroquinone monoethyl ether	622-62-8	1-Ethoxy-4-hydroxybenzene p-Ethoxyphenol Phenol, 4-ethoxy- 4-Ethoxyphenol	PROHIBITION		DEPIGMENTATION	YES	NO	Not much in use	

27	58	IFRA_STD_155	40	6-Isopropyl-2-decalol	34131-99-2	Decahydro-6-isopropyl-2-naphthol Decahydro-6-(1-methylethyl)-2-naphthalenol 6-Isopropyl-2-decahydronaphthalenol 6-Isopropyldecalol 2-Naphthalenol, decahydro-6-(1-methylethyl)- Decatol	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	

28	59	IFRA_STD_159	40	α-Methyl anisylidene acetone	104-27-8	1-(p-Methoxyphenyl)-1-penten-3-one p-Methoxystyryl ethyl ketone alpha-Methylanisalacetone α-Methylanisalacetone 1-(4-Methoxyphenyl)-1-penten-3-one 1-Penten-3-one, 1-(4-(methoxyphenyl)- Ethone (commercial name)	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	
29	60	IFRA_STD_161	40	7-Methylcoumarin	2445-83-2	2H-1-Benzopyran-2-one, 7-methyl- 7-Methyl-2-H-1-benzopyran-2-one	PROHIBITION		DERMAL_SENS_PHOTOSENS	YES	NO	Not much in use	
30	61	IFRA_STD_162	40	Methyl crotonate	623-43-8	2-Butenoic acid, methyl ester, (E)- Methyl trans-2-butenoate	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	

31	62	IFRA_STD_163	40	4-Methyl-7-ethoxycoumarin	87-05-8	2H-1-Benzopyran-2-one, 7-ethoxy-4-methyl- Coumarin, 7-ethoxy-4-methyl- 7-Ethoxy-4-methylcoumarin 4-Methyl-7-ethoxybenzopyrone Maraniol (commercial name)	PROHIBITION		PHOTOSENSITIZATION	YES	NO	Not much in use	
32	63	IFRA_STD_171	40	Nitrobenzene	98-95-3	Benzene, nitro Nitrobenzol Mirbane oil	PROHIBITION		ACUTE_TOX_SKIN_TOX	YES	YES	Not much in use	Restricted for consumer use if benzene content > 0,1%
33	64	IFRA_STD_172	40	2-Pentylidene cyclohexanone	25677-40-1	Cyclohexanone, 2-pentylidene-	PROHIBITION		DERMAL_SENS	YES	NO	Not much in use	
34	65	IFRA_STD_107	43	Allyl isothiocyanate	57-06-7	AITC Allyl isosulfocyanate Allyl thiocarbonimide 1-Propenal, 3-isothiocyanato- 2-Propenyl isothiocyanate	PROHIBITION		INSUFFICIENT_DATA	YES	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

35	67	IFRA_STD_121	43	Chenopodium oil	8006-99-3	American wormseed oil Chenopodium ambrosioides L. var anthelminticum	PROHIBITION		INSUFFICIENT_DATA	YES	?	Not much in use	CAS number not in ECHA DB
36	68	IFRA_STD_167	43	Moskene (1,1,3,3,5-Pentamethyl-4,6-dinitroindane)	116-66-5	1H-Indene, 2,3-dihydro-1,1,3,3,5-pentamethyl-4,6,-dinitro-	PROHIBITION		INSUFFICIENT_DATA	YES	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
37	69	IFRA_STD_169	43	Musk tibetene (1-tert-Butyl-2,6-dinitro-3,4,5-trimethylbenzene)	145-39-1	Benzene, 1-(1,1-dimethylethyl)-3,4,5-trimethyl-2,6-dinitro-	PROHIBITION		INSUFFICIENT_DATA	YES	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

38	7	IFRA_STD_145	43	Geranyl nitrile	5146-66-7 5585-39-7 31983-27-4	3,7-Dimethyl-2,6-octadienenitrile Geranonitrile (isomer unspecified) 2,6-Octadienenitrile, 3,7-dimethyl- Citranile (commercial name) Citralva (commercial name) Geranitrile (commercial name)	PROHIBITION		GENOTOXICITY	YES	YES	It is a concern for India, as it is still in use and is also manufactured in India.	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

39	70	IFRA_STD_178	45	Quinoline	91-22-5	1-Benzazine 2,3-Benzopyridine Benzo(b)pyridine Chinoleine Leucoline Quinoleine	PROHIBITION		CARC_MUTA	YES (CMR OMNIBUS)	YES	Not much in use	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

40	71	IFRA_STD_143	48	Furfuryl alcohol	98-00-0	2-Furancarbinol 2-Furanmethanol Furfuralcohol Furfuryl alcohol α-Furylcarbinol 2-Furylcarbinol 2-Furylmethanol 2-Hydroxymethylfuran	PROHIBITION		INSUFFICIENT_DATA	YES (CMR OMNIBUS)	NO		Harmonized CAR 2

41	72	IFRA_STD_112	38	Benzyl cyanide*	140-29-4	Benzeneacetonitrile Benzylnitrile Phenylacetonitrile Phenyl acetyl nitrile	PROHIBITION_RESTRICTION	*On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils and extracts), exposure to this substance from the use of these oils and extracts is not significant and the use of these oils is authorized as long as the level of Benzyl cyanide in the finished product does not exceed 0.01% (100 ppm)	CYANIDE_RELEASE	YES	NO	Not much in use	GHS classification: Fatal if inhaled

42	73	IFRA_STD_158	43	7-Methoxycoumarin*	531-59-9	2H-1-Benzopyran-2-one, 7-methoxy-Herniarin	PROHIBITION_RESTRICTION	*On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils and extracts), exposure to this substance from the use of these oils and extracts is not significant and the use of these oils is authorized as long as the level of Benzyl cyanide in the finished product does not exceed 0.01% (100 ppm)	DERMAL_SENS_PHOTOSENS	YES	NO	Not much in use	
43	74A	IFRA_STD_083	49	Verbena oil (Lippia citriodora Kunth.)*	8024-12-2 85116-63-8	Prohibition of Verbena oils: Lippia citriodora oils and derivatives	PROHIBITION_RESTRICTION	All prohibited except absolute (restricted)	DERMAL_SENS	YES	NO	Not much in use	

44	75	IFRA_STD_154	49	Isophorone*	78-59-1	2-Cyclohexen-1-one, 3,5,5-trimethyl- Isoacetophorone 3,5,5-Trimethyl-2-cyclohexen-1-one	PROHIBITION_RESTRICTION	*On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils and extracts), exposure to this substance from the use of these oils and extracts is not significant and the use of these oils is authorized as long as the level of Isophorone in the finished product does not exceed 0.0013%	INSUFFICIENT_DATA	YES	NO	Not much in use	

45	79	IFRA_STD_125	4	Cyclamen alcohol*	4756-19-8	3-(4-Isopropylphenyl)-2-methylpropan-1-ol 3-(p-Isopropyl)phenyl-2-methyl-1-propanol Benzenepropanol, .β.-methyl-4-(1-methylethyl)-	PROHIBITION_SPECIFICATION	*Cyclamen alcohol should not be used as a fragrance ingredient as such, but a level of up to 1.5% in Cyclamen aldehyde (CAS number 103-95-7) is accepted.	DERMAL_SENS	YES	NO	Not much in use	

46	80	IFRA_STD_111	38	Benzene*	71-43-2	Benzol	PROHIBITION_SPECIFICATION	The level of Benzene has to be kept as low as practicable and should never exceed 1 ppm in the fragrance compound/mixture or fragrance oil.	CARCINOGENICITY	YES	YES	Not much in use	Restricted as CMR 1A for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally
47	81	IFRA_STD_176	40	Pseudoionone (2,6-Dimethylundeca-2,6,8-trien-10-one)*	141-10-6	Citrylideneacetone 6,10-Dimethyl-3,5,9-undecatrien-2-one 3,5,9-Undecatrien-2-one, 6,10-dimethyl-	PROHIBITION_SPECIFICATION	Pseudoionone should not be used as fragrance ingredient as such, but a level of up to 2% as an impurity in Ionones is accepted.	DERMAL_SENS	YES	NO	Not much in use	

48	82	IFRA_STD_177	44	Pseudo methylionones *	26651-96-7 72968-25-3 1117-41-5	2,6-Dimethyldodeca-2,6,8-trien-10-one 7,11-Dimethyl-4,6,10-dodecatrien-3-one 7,11-Dimethyldodeca-4,6,10-trien-3-one 4,6,10-Dodecatrien-3-one, 7,11-dimethyl- 3,6,10-Trimethylundeca-3,5,9-trien-2-one	PROHIBITION_SPECIFICATION	Pseudo methylionones should not be used as fragrance ingredient as such, but a level of up to 2% as an impurity in Methylionones is accepted.	DERMAL_SENS	YES	NO	Not much in use	
49	83A	IFRA_STD_181	10	Savin oil	8024-00-8 90046-04-1	Juniperus Sabina L. (prohibition)	PROHIBITION_SPECIFICATION		ACUTE_TOX	Yes	NO	Not much in use	CAS n° in Coising 90046-04-1
50	9	IFRA_STD_124	40	Costus root oil, absolute and concrete	8023-88-9	Costus root essential oil, absolute and concrete (Saussurea lappa Clarke) Oils, costus Saussurea lappa root oil Spiral flag oil	PROHIBITION		DERMAL_SENS	YES	NO	It is a concern for India, as it is still in use and is also manufactured in India.	

S.No.	S.No. as per Master file	KEY STRING	AMENDMENT	INGREDIENT NAME	CAS NUMBER(S)	SYNONYMS	IFRA STANDARD RECOMMENDATION	FOOTNOTE	IFRA STANDARD CRITICAL EFFECT	EU COSMETICS REGULATION BAN (ANNEX II)	EU COSMETICS REGULATION RESTRICTION (ANNEX III)	EU REACH RESTRICTED	Remarks	REMARKS
1	8	IFRA_STD_170	44	Musk xylene (1-tert-Butyl-3,5-dimethyl-2,4,6-trinitrobenzene)	81-15-2	2,4,6-Trinitro-1,3-methyl-5-tert-butylbenzene Benzene, 1-(1,1-dimethylethyl)-3,5-dimethyl-2,4,6-trinitro- Musk xylol	PROHIBITION		VPVB (Very Persistent Very Bioaccumulative)	Not listed	Listed in Annex III Cosmetic regulation Restriction applies to all cosmetic products with an exception to oral care products (a) 1.0% in fine fragrance (b) 0.4% in eau de toilette (c) 0.03% in other products	YES	It is a concern for India	Banned Listed in Annex III Cosmetic regulation; Restriction applies to all cosmetic products with an exception to oral care products
2	1	IFRA_STD_153	40	Hydroquinone monomethyl ether	150-76-5	4-Hydroxyanisole p-Hydroxyanisole 4-Methoxyphenol p-Methoxyphenol Phenol, p-methoxy-	PROHIBITION		DEPIGMENTATION	Not listed	Listed in Annex III Cosmetic regulation Restriction applies to artificial nail system- 0.02%	NO	Not much in use	Restriction applies to artificial nail system

3	2	IFRA_STD_160	40	6-Methylcoumarin	92-48-8	2H-1-Benzopyran-2-one, 6-methyl 6-Methyl-2h-1-benzopyran-2-one 6-Methylbenzopyrone 6-Methyl coumarin 6-Methyl-cis-o-coumarinic lactone 5-Methyl-2-hydroxyphenyl propenoic acid lactone Toncarine (commercial name)	PROHIBITION		PHOTOSENSITIZATION	Not listed	Listed in Annex III Cosmetic regulation Restriction applies to Oral care products-0.003%	NO	Not much in use	Restriction applies to Oral care products

4	3A	IFRA_STD_110	40	trans-Asarone*	2883-98-9	2883-98-9: α-Asarone Asarone ((E)- and (Z)-2,4,5-Trimethoxypropen-1-yl benzene) trans-Asarone Benzene, 1,2,4-trimethoxy-5-(1-propenyl)-, (E)- trans-Isoasarone	PROHIBITION_RESTRICTION	On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils, extracts and absolutes), exposure to this substance from the use of these oils and extracts (e.g. Calamus oils) is regarded acceptable as long as the level of cis- and trans-Asarone in the finished consumer product does not exceed 100ppm (0.01%).	CARCINOGENICITY	Not listed		NO	This is anyway not much in use and cant find commercially available. Unless fractionated from Natural i.e Calamus Oil	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

5	3B	IFRA_STD_110	40	cis-Asarone*	5273-86-9	5273-86-9: ß-Asarone cis-ß-Asarone Benzene, 1,2,4-trimethoxy-5-(1-propenyl)-, (Z)- cis-Isoasarone	PROHIBITION_ RESTRICTION	On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils, extracts and absolutes), exposure to this substance from the use of these oils and extracts (e.g. Calamus oils) is regarded acceptable as long as the level of cis- and trans-Asarone in the finished consumer product does not exceed 100ppm (0.01%).	CARCINOGENICITY	Not listed		NO	This is anyway not much in use and cant find commercially available. Unless fractionated from Natural i.e Calamus Oil	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
6	4	IFRA_STD_106	43	Allyl heptine carbonate	73157-43-4	Allyl 2-octynoate 2-Octynoic acid 2-Propenyl ester	PROHIBITION		DERMAL_SENS	Not listed	Listed in Annex III Cosmetic regulation Maximum concentration in ready for use preparation- 0.002%	Restricted	Not much in use	

7	5	IFRA_STD_108	43	Amylcyclopentenone	25564-22-1	2-Cyclopenten-1-one, 2-pentyl- 2-Pentyl-2-cyclopentenone 2-Pentylcyclopent-2-en-1-one	PROHIBITION		DERMAL_SENS	Not listed	Listed in Annex III Cosmetic regulation Maximum concentration in ready for use preparation- 0.1%	NO	Not much in use	
8	6	IFRA_STD_164	43	p-Methylhydrocinnamic aldehyde	5406-12-2	Benzenepropanal, 4-methyl p-Methyldihydrocinnamaldehyde p-Methylhydrocinnamaldehyde 3-(4-Methylphenyl) propanal 3-p-Tolylpropionaldehyde	PROHIBITION		DERMAL_SENS	Not listed	Listed in Annex III Cosmetic regulation Maximum concentration in ready for use preparation- 0.2%	NO	Not much in use	
9	12	IFRA_STD_117	43	Bromostyrene	103-64-0	Benzene, (2-bromoethenyl)- α-Bromo-ß-phenylethylene ß-Bromostyrene ß-Bromovinylbenzene ω-Bromstyrene Bromstyrol Bromstyrolene	PROHIBITION		INSUFFICIENT_DATA	Not listed		Not listed	May be used, but should not be a concern	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

10	13B	IFRA_STD_179	17	Isosafrole	120-58-1	120-58-1: 1,2-Methylenedioxy-4-propenylbenzene 1,3-Benzodioxole, 5-(1-propenyl)- 5-Prop-1-en-1-yl-1,3-benzodioxole Iso-safrole	PROHIBITION_RESTRICTION	Exposure to this substance from the use of essential oils, extracts and absolutes is regarded acceptable as long as the total concentration of Safrole, Isosafrole and Dihydrosafrole in the finished consumer product does not exceed 0.01%.	CARCINOGENICITY	Not listed		Prohibited	Mainly used in tobacco flavourings	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

11	13C	IFRA_STD_179	17	Dihydrosafrole	94-58-6	94-58-6: 1,3-Benzodioxole, 5-propyl- 3,4-Methylenedioxypropylbenzene 5-Propyl-1,3-benzodioxole	PROHIBITION_RESTRICTION	Exposure to this substance from the use of essential oils, extracts and absolutes is regarded acceptable as long as the total concentration of Safrole, Isosafrole and Dihydrosafrole in the finished consumer product does not exceed 0.01%.	CARCINOGENICITY	Not listed		Prohibited	Mainly used in tobacco flavourings	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally
12	14	IFRA_STD_165	43	Methyl methacrylate	80-62-6	Methyl 2-methacrylate, 2-(methoxycarbonyl)-1-propene Methyl 2-methyl-2-propenoate 2-Propenoic acid, 2-methyl-, methyl ester MMA	PROHIBITION		DERMAL_SENS	Not listed		Not listed	Not much in use	CoRAP for Substance evaluation

13	16	IFRA_STD_182	38	Toluene*	108-88-3	Toluol Methylbenzol Methylbenzene	PROHIBITION_SPECIFICATION	The level of Toluene has to be kept as low as practicable and should never exceed 100 ppm in the fragrance compound/ mixture or fragrance oil.	LIVER_TOX	Not listed	Listed in Annex III Cosmetic regulation. Restriction applies to Nail products; Maximum 25%. Keep out of reach of children To be used by adults only	NO	Not much in use	Restricted, as a substance or in mixtures in a concentration equal to or greater than 0,1 % by weight where the substance or mixture is used in adhesives or spray paints intended for supply to the general public.
14	17	IFRA_STD_156	43	Massoia bark oil	85085-26-3	Cryptocarya massoio oil Cryptocarya massoy bark extract Cryptocarya massoy, ext. Massoia bark oil (Cryptocarya massoio)	PROHIBITION		DERMAL_SENS	Not listed		NO	Mostly used in flavours and for fractionation	

15	18	IFRA_STD_120	38	Carvone oxide	33204-74-9	Carvone epoxide 1,6-Epoxy-p-menth-8-en-2-one 1-Methyl-4-(1-methylvinyl)-7-oxabicyclo[4.1.0]heptan-2-one 7-Oxabicyclo[4.1.0]heptan-2-one, 1-methyl-4-(1-methylethenyl)-	PROHIBITION		DERMAL_SENS	Not listed		NO	Not much in use	
16	19	IFRA_STD_123	40	Colophony	8050-09-7	Colophonium Rosin	PROHIBITION		DERMAL_SENS	Not listed		NO	Not much in use	
17	20	IFRA_STD_116	43	3-Bromo-1,7,7-trimethylbicyclo[2.2.1]heptane-2-one	76-29-9	Bicyclo[2.2.1]heptan-2-one, 3-bromo-1,7,7-trimethyl- 2-Bornanone, 3-bromo- 3-Bromobornan-2-one 3-Bromo-2-bornanone 3-Bromocamphor Camphor bromide Camphor, 3-bromo-	PROHIBITION		INSUFFICIENT_DATA	Not listed		NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

18	21	IFRA_STD_122	43	Cinnamylidene acetone	4173-44-8	3,5-Hexadien-2-one, 6-phenyl- Methyl 4-phenyl-1,3-butadienyl ketone 1-Phenyl-3,5-hexadien-5-one 6-Phenyl-3,5-hexadien-2-on	PROHIBITION		INSUFFICIENT_DATA	Not listed		NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
19	22	IFRA_STD_127	43	Musk KS (1,3-Dibromo-2-methoxy-4-methyl-5-nitrobenzene)	62265-99-0	Benzene, 1,3-dibromo-2-methoxy-4-methyl-5-nitro- Bromorose 1,3-Dibromo-2-methoxy-5-nitro-6-methylbenzene 2,4-Dibromo-3-methoxy-6-nitrotoluene 2,6-Dibromo-3-methyl-4-nitroanisole 6-Nitro-2,4-dibromo-3-methoxytoluene Musk KS (commercial name)	PROHIBITION		INSUFFICIENT_DATA	Not listed		NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

20	23	IFRA_STD_128	43	2,2-Dichloro-1-methylcyclopropylbenzene	3591-42-2	Benzene, (2,2-dichloro-1-methylcyclopropyl)-	PROHIBITION		INSUFFICIENT_DATA	Not listed		NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
21	24	IFRA_STD_137	43	Esters of 2-Nonynoic acid (except Methyl octine carbonate)	e.g.: 10031-92-2	Ethyl 2-nonynoate Ethyl octine carbonate Ethyl octyne carbonate 2-Nonynoic acid, ethyl ester	PROHIBITION		INSUFFICIENT_DATA	Not listed		NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

22	25	IFRA_STD_138	43	Esters of 2-Octynoic acid (except Methyl heptine carbonate)	e.g.: 10484-32-9 10519-20-7	10484-32-9: Amyl heptine carbonate 2-Octynoic acid, pentyl ester Pentyl 2-octynoic acid Vert de violette 10519-20-7: Ethyl heptine carbonate Ethyl 2-octynoate 2-Octynoic acid, ethyl ester	PROHIBITION		INSUFFICIENT_DATA	Not listed		NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
23	26	IFRA_STD_144	43	Furfurylidene acetone	623-15-4	3-Buten-2-one, 4-(2-furanyl)- Furfuralacetone 4-(2-Furyl)-3-buten-2-one	PROHIBITION		INSUFFICIENT_DATA	Not listed		NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

24	27	IFRA_STD_166	43	3-Methyl-2(3)-nonenenitrile	53153-66-5	2-Nonenenitrile, 3-methyl- Citgrenile (commercial name)	PROHIBITION		DERMAL_SENS	Not listed	Listed in Annex III Cosmetic regulation Maximum concentration in ready for use preparation- 0.2%	NO	Not much in use	
25	28	IFRA_STD_174	43	Phenyl acetone	103-79-7	Benzyl methyl ketone Methyl benzyl ketone 2-Propanone, 1-phenyl	PROHIBITION		INSUFFICIENT_ DATA	Not listed		NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
26	29	IFRA_STD_175	43	Phenyl benzoate	93-99-2	Benzoic acid, phenyl ester	PROHIBITION		INSUFFICIENT_ DATA	Not listed		NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
27	30	IFRA_STD_180	43	Santolina oil	84961-58-0	Not applicable.	PROHIBITION		INSUFFICIENT_ DATA	Not listed		NO	Not much in use	

28	31	IFRA_STD_115	44	Boldo oil	8022-81-9	Boldo leaf oil (Peumus boldus Mol.) Oil, boldo leaf Peumus boldus oil	PROHIBITION		INSUFFICIENT_DATA	Not listed		NO	Not much in use	In Cosing with CAS 84649-96-7
29	32A-32L	IFRA_STD_129	47	2,4-Dienals	764-40-9 142-83-6 80466-34-8 5910-85-0 30361-28-5 6750-03-4 2363-88-4 13162-46-4 21662-16-8 25152-84-5 30361-29-6 4313-03-5	Including but not limited to: 2,4-Pentadienal 2,4-Hexadienal 2,4-Heptadienal 2,4-Octadienal 2,4-Nonadienal 2,4-Decadienal 2,4-Undecadienal 2,4-Dodecadienal trans,trans-2,4-Decadienal trans,trans-2,4-Undecadienal 2,4-Heptadien-1-al (including all geometric isomers)	PROHIBITION		INSUFFICIENT_DATA	Not listed		NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

30	33	IFRA_STD_136	48	2,4-Dodecadien-1-ol, (2E, 4E)	18485-38-6	2,4-Dodecadien-1-ol	PROHIBITION		INSUFFICIENT_DATA	Not listed		NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
31	34	IFRA_STD_147	48	2,4-Hexadien-1-ol	111-28-4 17102-64-6	1-Hydroxy-2,4-hexadiene Hexa-2,4-dien-1-ol Sorbic alcohol Sorbyl alcohol Hexadienol (commercial name)	PROHIBITION		INSUFFICIENT_DATA	Not listed		NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

32	35	IFRA_STD_157	48	Massoia lactone	54814-64-1 51154-96-2	2-Decen-1,5-lactone (-)-2-Decenoic acid, 5-hydroxy, δ-lactone (R)-5,6-Dihydro-6-pentyl-2H-pyran-2-one 5,6-Dihydro-6-pentyl-2H-pyran-2-one 5-Hydroxy-2-decenoic acid δ-lactone 2H-Pyran-2-one, 5,6-dihydro-6-pentyl-, (R)- Massoi lactone	PROHIBITION		DERMAL_SENS	Not listed		NO	Mostly used in flavours	
33	40B-40C	IFRA_STD_151	38	Dihydroabietyl alcohol	26266-77-3 1333-89-7	Tetrahydroabietyl Alcohol Dihydroabietyl alcohol Abitol (mixture of different hydroabietyl alcohols)	PROHIBITION		DERMAL_SENS	Not listed		NO	Not much in use	
34	66	IFRA_STD_126	43	Musk alpha (1,3-Dibromo-2-methoxy-4-nitro-5-(1,1-dimethylethyl)-6-methyl-benzene)	63697-53-0	Musk alpha Benzene,1,3-dibromo-5-(1,1-dimethylethyl)-2- methoxy-4-methyl-6-nitro-	PROHIBITION		INSUFFICIENT_DATA	Not listed		NO	Not much in use	CAS number not in ECHA DB

35	76A	IFRA_STD_078	49	Styrax crude*	8024-01-9 101227-15-0	Prohibition of the crude material: Styrax crude gums	PROHIBITION_RESTRICTION_SPECIFICATION	*Crude gums of Liquidambar styraficula L. var. macrophylla or Liquidambar orientalis Mill. should not be used as fragrance ingredients for any finished product application. Only extracts or distillates (resinoids, absolutes and oils), prepared from exudations of Liquidambar styraciflua L. var. macrophylla or Liquidambar orientalis Mill., can be used.	DERMAL_SENS	Not listed		NO	Mostly being imported, Used as resinoid	

36	77A	IFRA_STD_114	47	Birch wood pyrolysate crude*	8001-88-5 84012-15-7 85940-29-0 68917-50-0	Prohibition of the crude material: Birch tar oil, crude	PROHIBITION_SPECIFICATION	*Crude birch wood (bark) pyrolysates (oils) derived by pyrolysis (destructive distillation) of the wood or bark of Betula pubescens, Betula pendula, Betula lenta or Betula alba should not be used as a fragrance ingredient for any finished product application. Only rectified (purified) Birch tar oils being in compliance with the limitations for polynuclear aromatic hydrocarbons (PAH).	CARC_GEN_PAH	Not listed		NO	Not much in use	

37	78A	IFRA_STD_119	47	Cade oil*	8013-10-3	Prohibition of the crude material: Juniper tar	PROHIBITION_SPECIFICATION	*Crude cade oil derived by pyrolysis of the wood and twigs of Juniperus oxycedrus L. should not be used as a fragrance ingredient for any finished product application. Only rectified (purified) cade oils being in compliance with the limitations for polynuclear aromatic hydrocarbons (PAH).	CARC_GEN_PAH	Not listed		NO	Not much in use	Registered under REACH by SARL DISTILLERIE DES CEVENNES. Use in Cosmetics and fragrances is included.

S.No.	S.No. as per Master file	KEY STRING	AMENDMENT	INGREDIENT NAME	CAS NUMBER(S)	SYNONYMS	IFRA STANDARD RECOMMENDATION	FOOTNOTE	IFRA STANDARD CRITICAL EFFECT	EU COSMETICS REGULATION BAN (ANNEX II)	EU COSMETICS REGULATION RESTRICTION (ANNEX III)	EU REACH RESTRICTED	Remarks
1	1	IFRA_STD_153	40	Hydroquinone monomethyl ether	150-76-5	4-Hydroxyanisole p-Hydroxyanisole 4-Methoxyphenol p-Methoxyphenol Phenol, p-methoxy-	PROHIBITION		DEPIGMENTATION	Not listed	Listed in Annex III Cosmetic regulation Restriction applies to artificial nail system- 0.02%	NO	Not much in use

2	2	IFRA_STD_160	40	6-Methylcoumarin	92-48-8	2H-1-Benzopyran-2-one, 6-methyl 6-Methyl-2h-1-benzopyran-2-one 6-Methylbenzopyrone 6-Methyl coumarin 6-Methyl-cis-o-coumarinic lactone 5-Methyl-2-hydroxyphenyl propenoic acid lactone Toncarine (commercial name)	PROHIBITION		PHOTOSENSITIZATION	Not listed	Listed in Annex III Cosmetic regulation Restriction applies to Oral care products-0.003%	NO	Not much in use
3	4	IFRA_STD_106	43	Allyl heptine carbonate	73157-43-4	Allyl 2-octynoate 2-Octynoic acid 2-Propenyl ester	PROHIBITION		DERMAL_SENS	Not listed	Listed in Annex III Cosmetic regulation Maximum concentration in ready for use preparation-0.002%	Restricted	Not much in use

4	5	IFRA_STD_108	43	Amylcyclopentenone	25564-22-1	2-Cyclopenten-1-one, 2-pentyl- 2-Pentyl-2-cyclopentenone 2-Pentylcyclopent-2-en-1-one	PROHIBITION		DERMAL_SENS	Not listed	Listed in Annex III Cosmetic regulation Maximum concentration in ready for use preparation- 0.1%	NO	Not much in use
5	6	IFRA_STD_164	43	p-Methylhydrocinnamic aldehyde	5406-12-2	Benzenepropanal, 4-methyl p-Methyldihydrocinnamaldehyde p-Methylhydrocinnamaldehyde 3-(4-Methylphenyl)propanal 3-p-Tolylpropionaldehyde	PROHIBITION		DERMAL_SENS	Not listed	Listed in Annex III Cosmetic regulation Maximum concentration in ready for use preparation- 0.2%	NO	Not much in use

6	8	IFRA_STD_170	44	Musk xylene (1-tert-Butyl-3,5-dimethyl-2,4,6-trinitrobenzene)	81-15-2	2,4,6-Trinitro-1,3-methyl-5-tert-butylbenzene Benzene, 1-(1,1-dimethylethyl)-3,5-dimethyl-2,4,6-trinitro- Musk xylol	PROHIBITION		VPVB (Very Persistent Very Bioaccumulative)	Not applicable	Listed in Annex III Cosmetic regulation Restriction applies to all cosmetic products with an exception to oral care products (a) 1.0% in fine fragrance (b) 0.4% in eau de toilette (c) 0.03% in other products	YES	It is a concern for India

7	11B	IFRA_STD_097	49	Tagetes minuta oil and absolute; Tagetes patula oil and absolute	91722-29-1 8016-84-0 91770-75-1	Restriction and Specification of Tagetes patula and Tagetes minuta: Tagetes absolute (Tagetes patula L.) Tagetes patula absolute Tagetes patula, ext. Tagetes minuta absolute Tagetes oil	PROHIBITION_RESTRICTION_SPECIFICATION		PHOTOTOXICITY	Not listed	Listed in Annex III Cosmetic regulation Tagetes patula and Tagetes minuta should be used as fragrance ingredients according to the Restriction in the regulation (a) Leave-on products – 0.01% (b) Rinse-off products – 0.1% For (a) and (b): Alpha terthienyl (terthiophen) content in the extract/oil should not be more than 0.35 %. For (a): Not to be used in sunscreen products and products marketed for exposure to natural/artifici	NO	Tagetes Minuta is grown widely in India and its main use in Tabocco Flavouring and exports for fractionating natural Ocimene.

8	13A	IFRA_STD_179	17	Safrole	94-59-7	94-59-7: 1,3-Benzodioxole, 5-(2-propenyl)- 3,4-Methylene dioxyallylbenzene 4-Allyl-1,2-methylene dioxybenzene 5-Allyl-1,3-benzodioxole Safrol	PROHIBITION_RESTRICTION	Safrole except for normal content in the natural essences used and provided the concentration does not exceed: 100 ppm in the finished product, 50 ppm in products for dental and oral hygiene, and provided that Safrole is not present in toothpastes intended specifically for children Exposure to this substance from the use of essential oils, extracts and absolutes is regarded acceptable as long as the total concentration of Safrole,	CARCINOGENICITY	YES		Prohibited	Mainly used in tobacco flavourings

9	13B	IFRA_STD_179	17	Isosafrole	120-58-1	120-58-1: 1,2-Methylenedioxy-4-propenylbenzene 1,3-Benzodioxole, 5-(1-propenyl)- 5-Prop-1-en-1-yl-1,3-benzodioxole Iso-safrole	PROHIBITION_RESTRICTION	Exposure to this substance from the use of essential oils, extracts and absolutes is regarded acceptable as long as the total concentration of Safrole, Isosafrole and Dihydrosafrole in the finished consumer product does not exceed 0.01%.	CARCINOGENICITY	Not listed		Prohibited	Mainly used in tobacco flavourings

10	13C	IFRA_STD_179	17	Dihydrosafrole	94-58-6	94-58-6: 1,3-Benzodioxole, 5-propyl- 3,4-Methylenedioxypropylbenzene 5-Propyl-1,3-benzodioxole	PROHIBITION_RESTRICTION	Exposure to this substance from the use of essential oils, extracts and absolutes is regarded acceptable as long as the total concentration of Safrole, Isosafrole and Dihydrosafrole in the finished consumer product does not exceed 0.01%.	CARCINOGENICITY	Not listed		Prohibited	Mainly used in tobacco flavourings

11	15B	IFRA_STD_071	49	Peru balsam	8007-00-9	Myroxylon pereirae (Balsam Peru) oil Myroxylon pereirae oil Peru balsam absolute Peru balsam anhydrol	PROHIBITION_RESTRICTION_SPECIFICATION	Restriction applies to Peru balsam extracts and distillates (Peru balsam oil, absolute and anhydrol).	DERMAL_SENS_SYSTEMIC_TOX		Listed in Annex III Cosmetic regulation; Maximum concentration in ready for use preparation- 0.4%	NO	
12	27	IFRA_STD_166	43	3-Methyl-2(3)-nonenenitrile	53153-66-5	2-Nonenenitrile, 3-methyl- Citgrenile (commercial name)	PROHIBITION		DERMAL_SENS	Not listed	Listed in Annex III Cosmetic regulation Maximum concentration in ready for use preparation- 0.2%	NO	Not much in use

13	74B	IFRA_STD_083	49	Verbena absolute (Lippia citriodora Kunth.)	8024-12-2 85116-63-8	Restriction of Verbena absolutes: Lippia citriodora absolute Verbena absolute Aloysia triphylla absolute Lippia triphylla absolute Verbena triphylla absolute Zappania citrodora absolute	PROHIBITION_ RESTRICTION	All prohibited except absolute (restricted)	DERMAL_SENS	Not listed	Listed in Annex III Cosmetic regulation Maximum concentration in ready for use preparation- 0.2%	NO	Not much in use

14	76B	IFRA_STD_078	49	Styrax oil and extract	8046-19-3 94891-28-8	Liquidamber styracifolia oil and extract	PROHIBITION_RESTRICTION_SPECIFICATION	Styrax oil can be obtained from solvent extraction or pyrolysis. Styrax oil obtained through pyrolysis shall be rectified according to Good Manufacturing Practices (GMP) and the content of Polycyclic Aromatic Hydrocarbons (PAH) resulting from their use shall respect the following requirement: Benzopyrene and 1,2-Benzanthracene are to be used as markers for PAH. If used alone or in combination with rectified Cade oil, rectified Birch	DERMAL_SENS	Not listed	Max. concentration in ready to use preparation is 0.6%	NO	Mostly being imported, Used as resinoid

15	76C	IFRA_STD_078	49	Styrax oil and extract	94891-27-7	Liquidamber orientalis oil and extract	PROHIBITION_RESTRICTION_SPECIFICATION	Styrax oil can be obtained from solvent extraction or pyrolysis. Styrax oil obtained through pyrolysis shall be rectified according to Good Manufacturing Practices (GMP) and the content of Polycyclic Aromatic Hydrocarbons (PAH) resulting from their use shall respect the following requirement: Benzopyrene and 1,2-Benzanthracene are to be used as markers for PAH. If used alone or in combination with rectified Cade oil, rectified Birch	DERMAL_SENS	Not listed	Max. concentration in ready to use preparation is 0.6%	NO	Mostly being imported, Used as resinoid

16	77B	IFRA_STD_114	47	Birch wood pyrolysate	8001-88-5 84012-15-7 85940-29-0 68917-50-0	Specification for the distillates: Birch tar oil dephenolated Birch tar oil rectified Essence bouleau dephenolisée Essence bouleau (Goudron) rect.	PROHIBITION_SPECIFICATION	Only rectified (purified) Birch tar oils being in compliance with the limitations for polynuclear aromatic hydrocarbons (PAH). Benzopyrene and 1,2-Benzanthracene are to be used as markers for PAH. If used alone or in combination with rectified Cade oil, rectified Styrax oil or rectified Opoponax oil, the total concentration of both of the markers should not exceed 1 ppb in the final product.	CARC_GEN_PAH	Not listed		NO	Not much in use

17	78A	IFRA_STD_119	47	Cade oil*	8013-10-3	Prohibition of the crude material: Juniper tar	PROHIBITION_SPECIFICATION	*Crude cade oil derived by pyrolysis of the wood and twigs of Juniperus oxycedrus L. should not be used as a fragrance ingredient for any finished product application. Only rectified (purified) cade oils being in compliance with the limitations for polynuclear aromatic hydrocarbons (PAH).	CARC_GEN_PAH	Not listed		NO	Not much in use

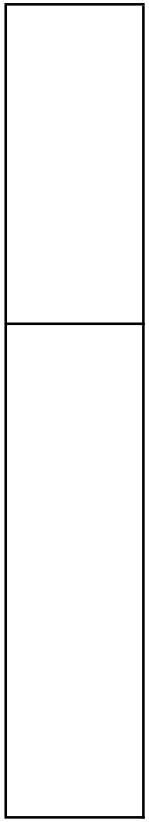
18	78B	IFRA_STD_119	47	Cade oil	90046-02-9	Specification for the distillates: Juniper tar oil Juniperus oxycedrus oil	PROHIBITION_SPECIFICATION	*Only rectified (purified) cade oils being in compliance with the limitations for polynuclear aromatic hydrocarbons (PAH). Benzopyrene and 1,2-Benzanthracene are to be used as markers for PAH. If used alone or in combination with rectified Birch tar oils, rectified Opoponax oil or rectified Styrax oil, the total concentration of both of the markers should not exceed 1 ppb in the final product.	CARC_GEN_PAH	Not listed		NO	Not much in use

19	81	IFRA_STD_176	40	Pseudoionone (2,6-Dimethylundeca-2,6,8-trien-10-one)*	141-10-6	Citrylideneacetone 6,10-Dimethyl-3,5,9-undecatrien-2-one 3,5,9-Undecatrien-2-one, 6,10-dimethyl-	PROHIBITION_SPECIFICATION	Pseudoionone should not be used as fragrance ingredient as such, but a level of up to 2% as an impurity in Ionones is accepted.	DERMAL_SENS	YES		NO	Not much in use
20	82	IFRA_STD_177	44	Pseudo methylionones*	26651-96-7 72968-25-3 1117-41-5	2,6-Dimethyldodeca-2,6,8-trien-10-one 7,11-Dimethyl-4,6,10-dodecatrien-3-one 7,11-Dimethyldodeca-4,6,10-trien-3-one 4,6,10-Dodecatrien-3-one, 7,11-dimethyl- 3,6,10-Trimethylundeca-3,5,9-trien-2-one	PROHIBITION_SPECIFICATION	Pseudo methylionones should not be used as fragrance ingredient as such, but a level of up to 2% as an impurity in Methylionones is accepted.	DERMAL_SENS	YES		NO	Not much in use

21	83B	IFRA_STD_181	10	Savin oil	68916-94-9 90046-03-0	Juniperus phoenicea L. (specification)	PROHIBITION_SPECIFICATION	CAS n° in Coising 90046-04-1 In the absence of an international standard, the following specifications for oils of Juniperus phoenicea L. are proposed: - Density d 20/20 0,864 - 0,873 - Refraction n 20 D 1,4700 - 1,4720 - Rotation alpha 20 D -1° - +4° - Acid value 0,4 - 1 - Ester value 2,5 - 7 - Ester value after acetylation 10 - 23 - Solubility 0.5-6 vol. in alcohol 96%, beyond that opalescence on dilution.	ACUTE_TOX	Not listed		NO	Not much in use
22	89	IFRA_STD_044	49	HICC	31906-04-4 51414-25-6	3 and 4-(4-Hydroxy-4-methylpentyl) cyclohex-3-ene-1-carbaldehyde; Lyral	RESTRICTED	RESTRICTED	DERMAL_SENS	YES		Restricted	

Remarks
Restriction applies to artificial nail system

Restriction applies to Oral care products



Banned Listed in Annex III Cosmetic regulation; Restriction applies to all cosmetic products with an exception to oral care products

Tagetes erecta should not be used as a fragrance ingredient in any finished product application. Only Tagetes patula and Tagetes minuta should be used as fragrance ingredients according to the Restriction in the regulation

Restricted as CMR 1B for consumer uses.
CMRs 1A and 1B shall not be used,
— as substances,
— as constituents of other substances, or,
— in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

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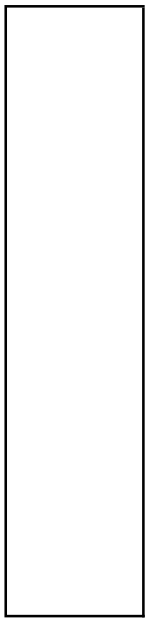
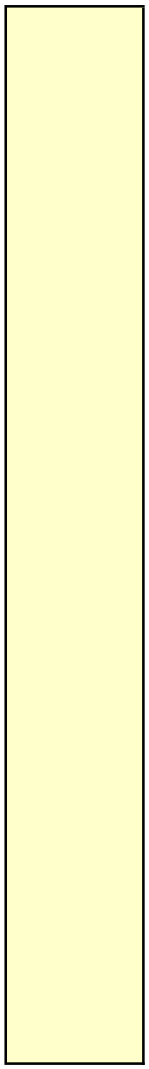
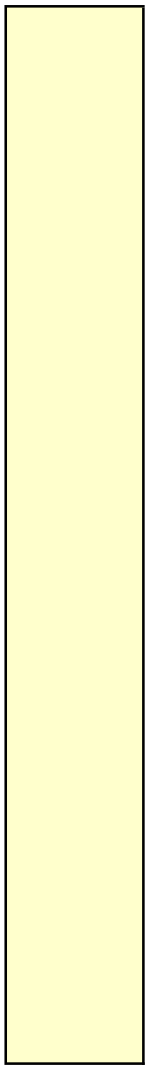
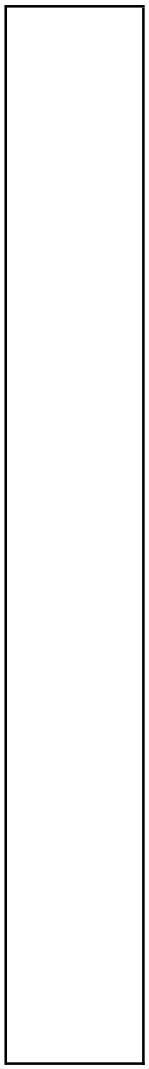
Exudate & Crude are Probited whereas Myroxylon pereirae oil Peru balsam absolute Peru balsam anhydrol are Restricted









Registered under REACH by SARL DISTILLERIE DES CEVENNES. Use in Cosmetics and fragrances is included.

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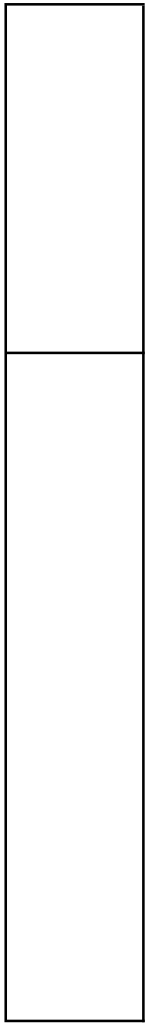

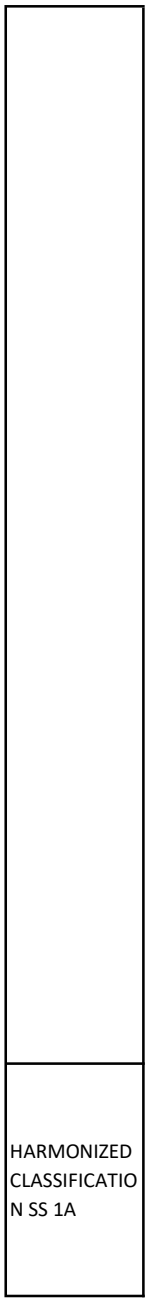
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S.No.	S.No. as per Master file	KEY STRING	INGREDIENT NAME	CAS NUMBER(S)	SYNONYMS	EU COSMETICS REGULATION BAN (ANNEX II)	EU REACH RESTRICTED	Remarks
1	84	NO IFRA STD	1,2-benzenedicarboxylic acid; di-C6-8-branched alkylesters, C7-rich	71888-89-6		CMR OMNIBUS	YES	
2	85	NO IFRA STD	ACETALDEHYDE	75-07-0		YES	YES	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

3	86	NO IFRA STD	STYRENE	100-42-5		YES (CMR OMNIBUS)	YES	HARMONIZED CLASSIFICATION CMR 2 (No RIFM id.)
4	87	NO IFRA STD	THFA	97-99-4	Tetrahydrofurfuryl alcohol	YES (CMR OMNIBUS)	NO	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

5	88	NO IFRA STD	KARANAL	117933-89-8			NEXT AUTHORISATION LIST	vPvB (very Persistent very Bioaccumulative) ; already included in the REACH authorisation list (Annex XIV) and will be prohibited for use in Cosmetic products from 27 August, 2023. [Refer to Commission Regulation (EU) 2020/171; (entry 50i)]. the placing on the market and the use of karanal, (including the use in cosmetic products) will be prohibited from 27 August 2023 onwards.

S.No.	S.No. as per Master file	KEY STRING	AMENDMENT	INGREDIENT NAME	CAS NUMBER(S)	SYNONYMS	IFRA STANDARD RECOMMENDATION	FOOTNOTE	IFRA STANDARD CRITICAL EFFECT	EU COSMETICS REGULATION BAN (ANNEX II)	EU REACH RESTRICTED	Remarks	REMARKS
1	12	IFRA_STD_117	43	Bromostyrene	103-64-0	Benzene, (2-bromoethenyl)- α-Bromo-ß-phenylethylene ß-Bromostyrene ß-Bromovinylbenzene ω-Bromstyrene Bromstyrol Bromstyrolene	PROHIBITION		INSUFFICIENT_DATA	Not listed	Not listed	May be used, but should not be a concern	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
2	20	IFRA_STD_116	43	3-Bromo-1,7,7-trimethylbicyclo[2.2.1]heptane-2-one	76-29-9	Bicyclo[2.2.1]heptan-2-one, 3-bromo-1,7,7-trimethyl- 2-Bornanone, 3-bromo- 3-Bromobornan-2-one 3-Bromo-2-bornanone 3-Bromocamphor Camphor bromide Camphor, 3-bromo-	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

3	21	IFRA_STD_122	43	Cinnamylidene acetone	4173-44-8	3,5-Hexadien-2-one, 6-phenyl- Methyl 4-phenyl-1,3-butadienyl ketone 1-Phenyl-3,5-hexadien-5-one 6-Phenyl-3,5-hexadien-2-on	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

4	22	IFRA_STD_127	43	Musk KS (1,3-Dibromo-2-methoxy-4-methyl-5-nitrobenzene)	62265-99-0	Benzene, 1,3-dibromo-2-methoxy-4-methyl-5-nitro- Bromorose 1,3-Dibromo-2-methoxy-5-nitro-6-methylbenzene 2,4-Dibromo-3-methoxy-6-nitrotoluene 2,6-Dibromo-3-methyl-4-nitroanisole 6-Nitro-2,4-dibromo-3-methoxytoluene Musk KS (commercial name)	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

5	23	IFRA_STD_128	43	2,2-Dichloro-1-methylcyclopropylbenzene	3591-42-2	Benzene, (2,2-dichloro-1-methylcyclopropyl)-	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
6	24	IFRA_STD_137	43	Esters of 2-Nonynoic acid (except Methyl octine carbonate)	e.g.: 10031-92-2	Ethyl 2-nonynoate Ethyl octine carbonate Ethyl octyne carbonate 2-Nonynoic acid, ethyl ester	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

7	25	IFRA_STD_138	43	Esters of 2-Octynoic acid (except Methyl heptine carbonate)	e.g.: 10484-32-9 10519-20-7	10484-32-9: Amyl heptine carbonate 2-Octynoic acid, pentyl ester Pentyl 2-octynoic acid Vert de violette 10519-20-7: Ethyl heptine carbonate Ethyl 2-octynoate 2-Octynoic acid, ethyl ester	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
8	26	IFRA_STD_144	43	Furfurylidene acetone	623-15-4	3-Buten-2-one, 4-(2-furanyl)- Furfuralacetone 4-(2-Furyl)-3-buten-2-one	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

9	28	IFRA_STD_174	43	Phenyl acetone	103-79-7	Benzyl methyl ketone Methyl benzyl ketone 2-Propanone, 1-phenyl	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
10	29	IFRA_STD_175	43	Phenyl benzoate	93-99-2	Benzoic acid, phenyl ester	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
11	30	IFRA_STD_180	43	Santolina oil	84961-58-0	Not applicable.	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	
12	31	IFRA_STD_115	44	Boldo oil	8022-81-9	Boldo leaf oil (Peumus boldus Mol.) Oil, boldo leaf Peumus boldus oil	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	In Cosing with CAS 84649-96-7

13	32A-32L	IFRA_STD_129	47	2,4-Dienals	764-40-9 142-83-6 80466-34-8 5910-85-0 30361-28-5 6750-03-4 2363-88-4 13162-46-4 21662-16-8 25152-84-5 30361-29-6 4313-03-5	Including but not limited to: 2,4-Pentadienal 2,4-Hexadienal 2,4-Heptadienal 2,4-Octadienal 2,4-Nonadienal 2,4-Decadienal 2,4-Undecadienal 2,4-Dodecadienal trans,trans-2,4-Decadienal trans,trans-2,4-Undecadienal 2,4-Heptadien-1-al (including all geometric isomers)	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

14	33	IFRA_STD_136	48	2,4-Dodecadien-1-ol, (2E, 4E)	18485-38-6	2,4-Dodecadien-1-ol	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
15	34	IFRA_STD_147	48	2,4-Hexadien-1-ol	111-28-4 17102-64-6	1-Hydroxy-2,4-hexadiene Hexa-2,4-dien-1-ol Sorbic alcohol Sorbyl alcohol Hexadienol (commercial name)	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

16	65	IFRA_STD_107	43	Allyl isothiocyanate	57-06-7	AITC Allyl isosulfocyanate Allyl thiocarbonimide 1-Propenal, 3-isothiocyanato- 2-Propenyl isothiocyanate	PROHIBITION		INSUFFICIENT_DATA	YES	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
17	66	IFRA_STD_126	43	Musk alpha (1,3-Dibromo-2-methoxy-4-nitro-5-(1,1-dimethylethyl)-6-methyl-benzene)	63697-53-0	Musk alpha Benzene,1,3-dibromo-5-(1,1-dimethylethyl)-2- methoxy-4-methyl-6-nitro-	PROHIBITION		INSUFFICIENT_DATA	Not listed	NO	Not much in use	CAS number not in ECHA DB
18	67	IFRA_STD_121	43	Chenopodium oil	8006-99-3	American wormseed oil Chenopodium ambrosioides L. var anthelminticum	PROHIBITION		INSUFFICIENT_DATA	YES	?	Not much in use	CAS number not in ECHA DB

19	68	IFRA_STD_167	43	Moskene (1,1,3,3,5-Pentamethyl-4,6-dinitroindane)	116-66-5	1H-Indene, 2,3-dihydro-1,1,3,3,5-pentamethyl-4,6,-dinitro-	PROHIBITION		INSUFFICIENT_DATA	YES	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.
20	69	IFRA_STD_169	43	Musk tibetene (1-tert-Butyl-2,6-dinitro-3,4,5-trimethylbenzene)	145-39-1	Benzene, 1-(1,1-dimethylethyl)-3,4,5-trimethyl-2,6-dinitro-	PROHIBITION		INSUFFICIENT_DATA	YES	NO	Not much in use	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

21	71	IFRA_STD_143	48	Furfuryl alcohol	98-00-0	2-Furancarbinol 2-Furanmethanol Furfuralcohol Furfuryl alcohol α-Furylcarbinol 2-Furylcarbinol 2-Furylmethanol 2-Hydroxymethylfuran	PROHIBITION		INSUFFICIENT_DATA	YES (CMR OMNIBUS)	NO		Harmonized CAR 2

22	75	IFRA_STD_154	49	Isophorone*	78-59-1	2-Cyclohexen-1-one, 3,5,5-trimethyl- Isoacetophorone 3,5,5-Trimethyl-2-cyclohexen-1-one	PROHIBITION_RESTRICTION	*On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils and extracts), exposure to this substance from the use of these oils and extracts is not significant and the use of these oils is authorized as long as the level of Isophorone in the finished product does not exceed 0.0013%	INSUFFICIENT_DATA	YES	NO	Not much in use	

S.No.		KEY STRING	AMENDMENT	INGREDIENT NAME	CAS NUMBER(S)	SYNONYMS	IFRA STANDARD RECOMMENDATION	INDIAN STANDARD RECOMMENDATION	FOOTNOTE	IFRA STANDARD CRITICAL EFFECT	EU COSMETICS REGULATION BAN (ANNEX II)	EU COSMETICS REGULATION RESTRICTION (ANNEX III)	IS 4707 Part II (INDIA) - For use in Cosmetics	COMMENT BY IFRA
1	3A	IFRA_STD_110	40	trans-Asarone*	2883-98-9	2883-98-9: α-Asarone Asarone ((E)- and (Z)-2,4,5-Trimethoxypropen-1-yl benzene) trans-Asarone Benzene, 1,2,4-trimethoxy-5-(1-propenyl)-, (E)- trans-Isoasarone	PROHIBITION_RESTRICTION	PROHIBITION	On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils, extracts and absolutes), exposure to this substance from the use of these oils and extracts (e.g. Calamus oils) is regarded acceptable as long as the level of cis- and trans-Asarone in the finished consumer product does not exceed 100ppm (0.01%).	CARCINOGENICITY	Not listed		Not listed	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

2	3B	IFRA_STD_110	40	cis-Asarone*	5273-86-9	5273-86-9: ß-Asarone cis-ß-Asarone Benzene, 1,2,4-trimethoxy-5-(1-propenyl)-, (Z)- cis-Isoasarone	PROHIBITION_ RESTRICTION	PROHIBITION	On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils, extracts and absolutes), exposure to this substance from the use of these oils and extracts (e.g. Calamus oils) is regarded acceptable as long as the level of cis- and trans-Asarone in the finished consumer product does not exceed 100ppm (0.01%).	CARCINOGENICITY	Not listed		Not listed	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

3	9	IFRA_STD_124	40	Costus root oil, absolute and concrete	8023-88-9	Costus root essential oil, absolute and concrete (Saussurea lappa Clarke) Oils, costus Saussurea lappa root oil Spiral flag oil	PROHIBITION	PROHIBITION		DERMAL_SENS	YES		Prohibited	
4	11A	IFRA_STD_097	49	Tagetes erecta oil and absolute	90131-43-4 8016-84-0	Prohibition of Tagetes erecta: Tagetes erecta L. Tagetes oil	PROHIBITION_ RESTRICTION_ SPECIFICATION	PROHIBITION		PHOTOTOXICITY	YES		Not listed	Tagetes erecta should not be used as a fragrance ingredient in any finished product application. Only Tagetes patula and Tagetes minuta should be used as fragrance ingredients according to the Restriction in the regulation

5	13A	IFRA_STD_179	17	Safrole	94-59-7	94-59-7: 1,3-Benzodioxole, 5-(2-propenyl)- 3,4-Methylene dioxyallylbenzene 4-Allyl-1,2-methylene dioxybenzene 5-Allyl-1,3-benzodioxole Safrol	PROHIBITION_RESTRICTION	PROHIBITION	Safrole except for normal content in the natural essences used and provided the concentration does not exceed: 100 ppm in the finished product, 50 ppm in products for dental and oral hygiene, and provided that Safrole is not present in toothpastes intended specifically for children Exposure to this substance from the use of essential oils, extracts and absolutes is regarded acceptable as long as the total concentration of Safrole,	CARCINOGENICITY	YES		Prohibited	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

6	13B	IFRA_STD_179	17	Isosafrole	120-58-1	120-58-1: 1,2-Methylenedioxy-4-propenylbenzene 1,3-Benzodioxole, 5-(1-propenyl)- 5-Prop-1-en-1-yl-1,3-benzodioxole Iso-safrole	PROHIBITION_RESTRICTION	PROHIBITION	Exposure to this substance from the use of essential oils, extracts and absolutes is regarded acceptable as long as the total concentration of Safrole, Isosafrole and Dihydrosafrole in the finished consumer product does not exceed 0.01%.	CARCINOGENICITY	Not listed		Not listed	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

7	13C	IFRA_STD_179	17	Dihydrosafrole	94-58-6	94-58-6: 1,3-Benzodioxole, 5-propyl- 3,4-Methylenedioxypropylbenzene 5-Propyl-1,3-benzodioxole	PROHIBITION_RESTRICTION	PROHIBITION	Exposure to this substance from the use of essential oils, extracts and absolutes is regarded acceptable as long as the total concentration of Safrole, Isosafrole and Dihydrosafrole in the finished consumer product does not exceed 0.01%.	CARCINOGENICITY	Not listed		Not listed	Restricted as CMR 1B for consumer uses. CMRs 1A and 1B shall not be used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than 0,1% normally

8	15A	IFRA_STD_071	49	Peru balsam crude*	8007-00-9	Balsam oil, Peru (Myroxylon pereirae Klotzsch) Balsams, Peru crude Myroxylon pereirae (Balsam Peru) resin	PROHIBITION_ RESTRICTION_ SPECIFICATION	PROHIBITION	Peru balsam crude should not be used as a fragrance ingredient for any finished product application. Restriction applies to Peru balsam extracts and distillates (Peru balsam oil, absolute and anhydrol).	DERMAL_SENS _SYSTEMIC_T OX	YES		Prohibited / Restricted	*Exudate & Crude are Probited whereas Myroxylon pereirae oil Peru balsam absolute Peru balsam anhydrol are Restricted
9	17	IFRA_STD_156	43	Massoia bark oil	85085-26-3	Cryptocarya massoio oil Cryptocarya massoy bark extract Cryptocarya massoy, ext. Massoia bark oil (Cryptocarya massoio)	PROHIBITION	PROHIBITION		DERMAL_SENS	Not listed		Not listed	

10	35	IFRA_STD_157	48	Massoia lactone	54814-64-1 51154-96-2	2-Decen-1,5-lactone (-)-2-Decenoic acid, 5-hydroxy, δ-lactone (R)-5,6-Dihydro-6-pentyl-2H-pyran-2-one 5,6-Dihydro-6-pentyl-2H-pyran-2-one 5-Hydroxy-2-decenoic acid δ-lactone 2H-Pyran-2-one, 5,6-dihydro-6-pentyl-, (R)- Massoi lactone	PROHIBITION	PROHIBITION		DERMAL_SENS	Not listed		Not listed	

11	72	IFRA_STD_112	38	Benzyl cyanide*	140-29-4	Benzeneacetonitrile Benzylnitrile Phenylacetonitrile Phenyl acetyl nitrile	PROHIBITION_RESTRICTION	PROHIBITION	*On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils and extracts), exposure to this substance from the use of these oils and extracts is not significant and the use of these oils is authorized as long as the level of Benzyl cyanide in the finished product does not exceed 0.01% (100 ppm)	CYANIDE_RELEASE	YES		Prohibited	GHS classification: Fatal if inhaled

12	73	IFRA_STD_158	43	7-Methoxycoumarin*	531-59-9	2H-1-Benzopyran-2-one, 7-methoxy-Herniarin	PROHIBITION_RESTRICTION	PROHIBITION	*On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils and extracts), exposure to this substance from the use of these oils and extracts is not significant and the use of these oils is authorized as long as the level of Benzyl cyanide in the finished product does not exceed 0.01% (100 ppm)	DERMAL_SENS_PHOTOSENS	YES		Prohibited	
13	74A	IFRA_STD_083	49	Verbena oil (Lippia citriodora Kunth.)*	8024-12-2 85116-63-8	Prohibition of Verbena oils: Lippia citriodora oils and derivatives	PROHIBITION_RESTRICTION	PROHIBITION	All prohibited except absolute (restricted)	DERMAL_SENS	YES		Prohibited/ Restricted	

14	75	IFRA_STD_154	49	Isophorone*	78-59-1	2-Cyclohexen-1-one, 3,5,5-trimethyl- Isoacetophorone 3,5,5-Trimethyl-2-cyclohexen-1-one	PROHIBITION_RESTRICTION	PROHIBITION	*On the basis of established maximum concentration levels of this substance in commercially available natural sources (like essential oils and extracts), exposure to this substance from the use of these oils and extracts is not significant and the use of these oils is authorized as long as the level of Isophorone in the finished product does not exceed 0.0013%	INSUFFICIENT_DATA	YES		Prohibited	Isophorone S.C. Gad, in Encyclopedia of Toxicology (Third Edition), 2014 Research paper from public domain

15	76A	IFRA_STD_078	49	Styrax crude*	8024-01-9 101227-15-0	Prohibition of the crude material: Styrax crude gums	PROHIBITION_ RESTRICTION_ SPECIFICATION	PROHIBITION	*Crude gums of Liquidambar styraficula L. var. macrophylla or Liquidambar orientalis Mill. should not be used as fragrance ingredients for any finished product application. Only extracts or distillates (resinoids, absolutes and oils), prepared from exudations of Liquidambar styraciflua L. var. macrophylla or Liquidambar orientalis Mill., can be used.	DERMAL_SENS	Not listed		Restricted	

16	77A	IFRA_STD_114	47	Birch wood pyrolysate crude*	8001-88-5 84012-15-7 85940-29-0 68917-50-0	Prohibition of the crude material: Birch tar oil, crude	PROHIBITION_SPECIFICATION	PROHIBITION	*Crude birch wood (bark) pyrolysates (oils) derived by pyrolysis (destructive distillation) of the wood or bark of Betula pubescens, Betula pendula, Betula lenta or Betula alba should not be used as a fragrance ingredient for any finished product application. Only rectified (purified) Birch tar oils being in compliance with the limitations for polynuclear aromatic hydrocarbons (PAH).	CARC_GEN_PAH	Not listed		Not listed	

17	78A	IFRA_STD_119	47	Cade oil*	8013-10-3	Prohibition of the crude material: Juniper tar	PROHIBITION_SPECIFICATION	PROHIBITION	*Crude cade oil derived by pyrolysis of the wood and twigs of Juniperus oxycedrus L. should not be used as a fragrance ingredient for any finished product application. Only rectified (purified) cade oils being in compliance with the limitations for polynuclear aromatic hydrocarbons (PAH).	CARC_GEN_PAH	Not listed		Not listed	Registered under REACH by SARL DISTILLERIE DES CEVENNES. Use in Cosmetics and fragrances is included.
18	83A	IFRA_STD_181	10	Savin oil	8024-00-8 90046-04-1	Juniperus Sabina L. (prohibition)	PROHIBITION_SPECIFICATION	PROHIBITION		ACUTE_TOX	Yes		Prohibited	CAS n° in Coising 90046-04-1
19	30	IFRA_STD_180	43	Santolina oil	84961-58-0	Not applicable.	PROHIBITION	PROHIBITION		INSUFFICIENT_DATA	Not listed		Not listed	
20	31	IFRA_STD_115	44	Boldo oil	8022-81-9	Boldo leaf oil (Peumus boldus Mol.) Oil, boldo leaf Peumus boldus oil	PROHIBITION	PROHIBITION		INSUFFICIENT_DATA	Not listed		Not listed	In Cosing with CAS 84649-96-7
21	86	NO IFRA STD		STYRENE	100-42-5			PROHIBITION			YES (CMR OMNIBUS)		Not listed	HARMONIZED CLASSIFICATION CMR 2 (No RIFM id.)

22	1	IFRA_STD_153	40	Hydroquinone monomethyl ether	150-76-5	4-Hydroxyanisole p-Hydroxyanisole 4-Methoxyphenol p-Methoxyphenol Phenol, p-methoxy-	PROHIBITION	PROHIBITION		DEPIGMENTATION	Not listed	Listed in Annex III Cosmetic regulation Restriction applies to artificial nail system- 0.02%	Restricted	Restriction applies to artificial nail system
23	43	IFRA_STD_105	40	Alantroot oil	97676-35-2	Alantroot oil (Inula helenium) Elecampane oil Inula helenium oil	PROHIBITION	PROHIBITION		DERMAL_SENS	YES		Prohibited	
24	52	IFRA_STD_142	40	Fig leaf absolute	68916-52-9	Ficus carica absolute Fig leaf absolute (Ficus carica)	PROHIBITION	PROHIBITION		DERMAL_SENS_PHOTOX	YES		Prohibited	
25	65	IFRA_STD_107	43	Allyl isothiocyanate	57-06-7	AITC Allyl isosulfocyanate Allyl thiocarbonimide 1-Propenal, 3-isothiocyanato- 2-Propenyl isothiocyanate	PROHIBITION	PROHIBITION		INSUFFICIENT_DATA	YES		Prohibited	REACH Annex III: Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity.

26	67	IFRA_STD_121	43	Chenopodium oil	8006-99-3	American wormseed oil Chenopodium ambrosioides L. var anthelminticum	PROHIBITION	PROHIBITION		INSUFFICIENT_DATA	YES		Prohibited	CAS number not in ECHA DB