

Cosmetic Products

- Ingredient Labelling

Help Note for Dermatologists

September 2023

### **Cosmetic Ingredient Labelling**

The legislation that regulates cosmetic products\* in Great Britain and EU/NI are respectively Schedule 34 of the Product Safety and Metrology Statutory Instrument (UK Cosmetics Regulation - UKCR) and the EU Cosmetic Products Regulation (EU CPR). Under the legislation all cosmetic products sold in the UK and EU must display a complete ingredients list. Since fragrances are complex mixtures of many individual substances, if a cosmetic product contains a fragrance or flavour (in oral care products for example) the word 'parfum' or 'aroma', respectively, must appear in the ingredients list. Please see page 6 for more details on specific fragrance labelling.

Ingredient labelling helps users to identify products with ingredients to which they know they are allergic. Ingredient names must, by law, use the International Nomenclature of Cosmetic Ingredients, known as INCI.

Furthermore, since 2019, there is an EU glossary of cosmetic ingredient names which lists all the names of cosmetic ingredients that must be used to label ingredients in the EU (may contain both the INCI and the commercial names). The UK is currently developing its own ingredients glossary.

This means that in whatever European country a cosmetic product is bought, the ingredient names will be the same. These INCI names have also been adopted by many countries worldwide.

The standardised INCI names are developed by the International Nomenclature Committee according to a set of nomenclature conventions. The European Commission's <u>CosIng – Inventory of Ingredients</u> database is an indicative database displaying INCI names for substances. However, this database does not constitute a list of substances authorised for use in cosmetic products and it may also list ingredients known to be used in medicinal products.

The list of ingredients is established in descending order of weight of the ingredients at the time they are added to the cosmetic product. Ingredients in concentrations of less than one percent may be listed in any order after those in concentrations of more than one percent.

Listed in Table 1 are some examples of INCI names of ingredients more associated with sensitisation.

The legally binding names for cosmetic ingredients, which still follow the International Nomenclature (INCI), are found in the <u>EU Glossary of cosmetic ingredients</u>. BAD can advise its members of the INCI name of any ingredient for which the chemical name is known. Trade names are not included in the Inventory.

This leaflet has been produced for members of the British Association of Dermatologists by the Cosmetic Toiletry & Perfumery Association (CTPA), 49 Whitehall, London, SW1A 2BX.

CTPA is the trade association for the cosmetic, toiletry and perfumery industry in the UK. Our members vary from small and medium-sized companies to large multi-nationals and include manufacturers, raw material suppliers and service providers. As the voice of the British cosmetics industry, our primary goal is to promote good working practice to ensure that consumers are provided with the very best products.

<sup>\*</sup>Under the EU and UK Cosmetics Regulations, a cosmetic is defined as:

<sup>&</sup>quot;A "cosmetic product" shall mean any substance or mixture intended to be placed in contact with the various external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth and the mucous membranes of the oral cavity with a view exclusively or mainly to cleaning them, perfuming them, changing their appearance and/or correcting body odours and/or protecting them or keeping them in good condition"

The following tables and ingredients have been prepared in conjunction with dermatologists from the British Society for Cutaneous Allergy (BSCA).

Table 1

### **Artificial Nails and Nail Cosmetics**

INCI name	Chemical name or common name	Trade name(s) examples
	Acrylate / acrylic monomers	
	Urethane acrylates	
1,4-Butanediol dimethacrylate	1,4 BDMA	
Di-HEMA trimethylhexyl dicarbamate	Urethane dimethacrylate UDMA	
Ethyl cyanoacrylate	ECA 2-Cyanoacrylic acid ethyl ester	
Ethyl methacrylate	EMA	
Glycol dimethacrylate	Ethyleneglycol dimethacrylate (EGDMA) Glycol HEMA-methacrylate	
НЕМА	2-Hydroxyethyl methacrylate	
2-Hydroxyethyl acrylate	Ethylene glycol acrylate HEA	
Hydroxypropyl methacrylate	HPMA Propylene glycol monomethacrylate	
Methyl methacrylate		
Methacrylic acid		
Tetrahydrofurfuryl methacrylate		
Tosylamide/formaldehyde resin	Toluene sulfonamide/formaldehyde resin	Santolite Resin

Note: Acrylic copolymers are rarely known to be associated with sensitisation and do not cross-react with other acrylates.

### **Hair Colorants**

INCI name	Chemical name or common name	Trade name(s) examples
p-Phenylenediamine	Para-phenylenediamine PPD	
Toluene-2,5-diamine	p-Toluenediamine PTD	
Resorcinol		Jarocol RL Rodol RS

# Perfume / Fragrance

INCI name	Chemical name or common name	Trade name(s) examples
Parfum	Perfume, fragrance	

### **Preservatives**

INCI name	Chemical name or common name	Trade name(s) examples
2-Bromo-2-nitropropane-1,3-diol		Bronopol
Diazolidinyl urea	Formaldehyde releaser	Germall II
DMDM hydantoin	Formaldehyde releaser	
Formaldehyde	Formaldehyde	
Imidazolidinyl urea	Formaldehyde releaser	Germall 115
Methylisothiazolinone	2-Methyl-4-isothiazolin-3-one MI or MIT	
Methylchloroisothiazolinone and methylisothiazolinone blend	5-Chloro-2-Methyl-4-Isothiazolin-3-one / 2-Methyl-4-isothiazolin-3-one C(M)IT/MIT	Kathon CG Euxyl K100

#### **UV Filters**

INCI name	Chemical name or common name	Trade name(s) examples
Benzophenone-3	Oxybenzone	Eusolex 4360 Escalol 567 Uvinul M 40
Butyl methoxydibenzoylmethane	Avobenzone	Eusolex 9020 Parsol 1789
Ethylhexyl dimethyl PABA	Octyl dimethyl PABA Padimate O	Eusolex 6007 Escalol 507 Uvasorb DMO
Ethylhexyl methoxycinnamate	Octinoxate Octyl methoxycinnamate	Eusolex 2292 Parsol MCX

#### Other

INCI name	Chemical name or common name	Trade name(s) examples
ВНТ	Butylated hydroxytoluene	
Colophonium	Colophony, rosin	
Lanolin (and derivatives)	Lanolin / wool alcohols	Amerchol L101

### **Hair Colorants**

Hair colorants are extremely popular products. Fifty million units of home hair colorants are sold and forty-five million salon applications of hair colorants are carried out in the UK each year. While adverse reactions to hair dyes are rare, it is the case that certain consumers do experience allergic reactions. When these occur, in some instances they can be severe and obviously very uncomfortable and distressing. Fortunately, their effects are usually short-term. It is therefore important that hair colorants are used safely and correctly to avoid an adverse reaction.

Important safety instructions are provided on the outer pack and on instruction leaflets contained inside hair colorant products. These emphasise the importance of following the instructions closely. They highlight that some individuals may experience an allergic reaction and this reaction may be severe. It is recommended that an allergy alert test be performed at least 48 hours before colouring the hair. Clear instructions for the allergy alert test are provided.

There may also be other warnings on the packaging relating to the safe use of the product. Industry has labelled products with this information voluntarily for many years, and the need to label certain hair colorants with information about allergy and safe use is a legal requirement.

The allergy alert test is in no way intended to diagnose allergy in the way a skin patch test from a dermatologist would. The allergy alert test is just an indicator to the consumer that if they react to the product on a small area of skin, they should not go on to colour their hair. To do so could result in a severe reaction. If an individual reacts to the allergy alert test, they are advised to contact the manufacturer (careline or helpline numbers are provided on the pack) who will help them and their doctor organise diagnostic patch-testing with a dermatologist in order to identify which ingredient led to the reaction. Consumers are informed that any product containing that ingredient should not be used in the future, even from another manufacturer.

Individuals who suffer a reaction following the use of a hair colorant are advised to seek medical attention first but to also contact the manufacturer of the product or the salon where they had their hair coloured, both of whom will help the individual and their doctor handle the reaction.

Because of the possibility of cross-sensitisation for people who react to the hair dye para-phenylenediamine (PPD), all the products with dyes in this family will be labelled "contains phenylenediamines" or "contains phenylenediamines (toluenediamines)".

## **Temporary 'Black Henna' Tattoos**

It has been widely documented that so-called 'black henna' tattoos can cause painful short and long-term damage to the skin by inducing allergy. 'Black henna' tattoos are not the same as pure red henna tattoos. The 'black henna' tattoos are often mixed with the substance p-phenylenediamine (PPD). Whilst PPD is used safely as an ingredient in hair colorants, it is banned in unregulated concentrations for this kind of direct use on skin under the Cosmetics Regulation. CTPA is aware PPD applied directly to the skin at the high concentration needed in such tattoos can trigger adverse skin reactions and allergic contact dermatitis.

Exposure to PPD in 'black henna' tattoos will significantly increase the likelihood of developing allergies to the phenylenediamines safely used in hair colorants. Although the European Commission's independent scientific committee has recommended that PPD should not be used in temporary tattoos, some illegal uses still continue, especially at festivals and holiday resorts.

A reaction to a black henna tattoo may enhance the possibility for a reaction to a hair colorant. Therefore, a warning is placed on hair colorants: "Temporary 'black henna' tattoos may increase your risk of allergy" and "do not colour your hair if you have experienced a reaction to a temporary 'black henna' tattoo in the past."

# Allergens

Cosmetic products which contain fragrances, flavours, natural extracts or essential oils may contain relevant allergens. These allergens are most commonly referred to as 'fragrance allergens' but it is important to highlight that some naturally sourced ingredients may also contain these compounds.

All cosmetics that contain any fragrance chemicals, flavour or aroma will have the word 'parfum', 'fragrance' or 'aroma' in the ingredients list, or the name of a specific essential oil.

Fragrance ingredients are tested to assess how likely they are to cause skin reactions. There are 26 fragrance ingredients, listed in Table 2, that are considered more likely to cause reactions in susceptible people. These must be indicated in the list of ingredients, in addition to the word 'parfum', if their concentration exceeds 0.001% in leave-on products (e.g. a moisturiser) and 0.01% in rinse-off products (e.g. a shampoo).

The chemicals generally identified as fragrance allergens, may also be found in plant sourced essential oils or extracts. These also have to be disclosed on the label of the cosmetic product.

Two of these allergens (lyral and lilial) have recently been banned for use in cosmetic products, although consumers may still be using products containing these allergens.

This way of labelling cosmetics was introduced in 2005 to help people to make informed choices about what they buy, particularly if they have a diagnosed allergy to a specific fragrance ingredient. Such labelling will also aid dermatologists trying to identify the cause of a patient's reaction.

Patients who are given complete fragrance avoidance advice will therefore need to avoid any product containing parfum, perfume, fragrance, aroma or any essential oils or botanical extracts. INCI names for botanical extracts are based on the Linnaean system or Latin binomial, where the genus and species name are used to identify the plant.

### Methylisothiazolinone, also known as MI or MIT

Methylisothiazolinone is a preservative used in some cosmetic products and other household products. Preservatives are important ingredients designed to protect products, and so the consumer, against contamination by microorganisms during storage and continued use.

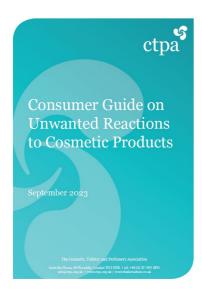
Since February 2017, methylisothiazolinone may only be used as a preservative in rinse-off cosmetic products. The amount of methylisothiazolinone allowed to be used in rinse-off products has been reduced from (100ppm) to 0.0015% (15ppm) and since April 2018, all cosmetics available to be purchased are compliant with the new limit.

Consumers may still have products at home containing methylisothiazolinone, which were purchased before the new Regulations came into force.

## **Choosing a Cosmetic Product**

Most cosmetic products will communicate their benefits on the front of the packaging. Many companies produce cosmetic products aimed at individuals with sensitive skin. However, it is important to remember to **always read the ingredient list**, as this provides the key information as to whether the ingredients may or may not be suitable if allergy has been diagnosed.

#### **Consumer Reactions to Cosmetic Products**



Following a reaction to a cosmetic product, consumers are encouraged to always contact the manufacturer (careline or helpline numbers are provided on the pack) so that they are aware that someone has experienced a reaction to their product. They will then be able to advise the consumer further on what action to take next.

CTPA has produced a <u>guide</u> to help explain to consumers what to do in such an instance and why it is important to inform the cosmetic product manufacturer.

Table 2 - Fragrance Allergens

INCI name	Other names / Trade names
Amyl cinnamal	
Benzyl alcohol	
Cinnamyl alcohol	
Citral	
Eugenol	
Hydroxycitronellal	Hydroxy-citronellal
Isoeugenol	
Amylcinnamyl alcohol	Amyl-cinnamyl alcohol
Benzyl salicylate	
Cinnamal	
Coumarin	
Geraniol	
Hydroxyisohexyl 3-cyclohexene carboxaldehyde	Hydroxymethylpentylcyclohexenecarboxaldehyde Lyral
Anise alcohol	Anisyl alcohol
Benzyl cinnamate	
Farnesol	
Butylphenyl methylpropional	2-(4-Tert-butylbenzyl) propionaldehyde Lilial
Linalool	
Benzyl benzoate	
Citronellol	
Hexyl cinnamal	Hexyl cinnamaldehyde
Limonene	d-Limonene
Methyl 2-octynoate	Methyl heptin carbonate (MHC)
Alpha-Isomethyl ionone	3-Methyl-4-(2,6,6-tri-methyl-2-cyclohexen-1-yl)-3-buten-2-one
Evernia prunastri	Oak moss extract
Evernia furfuracea	Treemoss extract

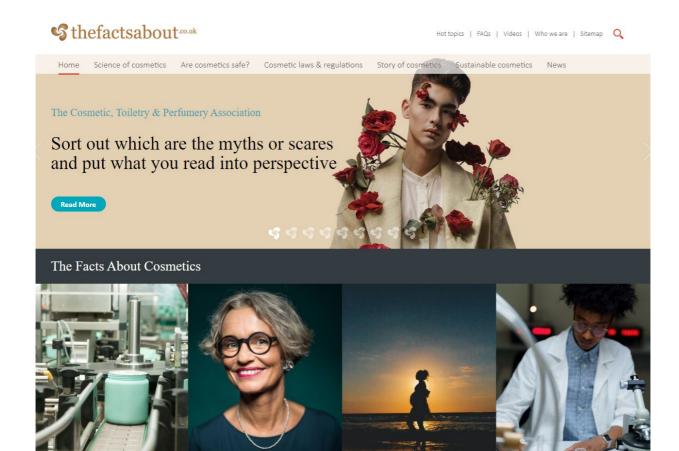
# **Nut Allergies**

Consumers with a known allergy to certain nuts may wish to avoid products that contain nut derived ingredients. Table 3 gives a list of common nuts and the INCI names by which they will be declared on the labels of cosmetic products.

#### Table 3

Ingredient	INCI name
Almond	Prunus amygdalus
Sweet almond	Prunus dulcis
Bitter almond	Prunus amara
Brazil nut	Bertholletia excelsa
Cashew nut	Anacardium occidentale
Chestnut	Castanea sativa
Coconut *	Cocos nucifera
Hazelnut	Corylus awellana Corylus americana Corylus rostrata
Horse chestnut	Aesculus hippocastanum
Kola nut	Cola vera
Kukui nut	Aleurites muluccana
Macadamia nut	Macadamia ternifolia Macadamia integrifolia
Peanut	Arachis hypogaea
Pistachio nut	Pistacia vera Pistacia lentiscus
Walnut	Juglans regia Juglans mandshurica Juglans nigra
Sesame seed	Sesamum indicum

<sup>\*</sup> Coconut in food does not seem to be associated with severe nut allergy reactions.



The CTPA's consumer website **www.thefactsabout.co.uk** aims to provide factual advice, best tips (for example applying sunscreen and using hair colorants, including a section called 'Colour with Confidence') and information on the science behind the products we use and enjoy daily. There are also sections on allergy and ingredient labelling. Other areas of interest are a section on chemicals which houses commentary from external sources such as the Royal Society of Chemistry and a babycare section with a useful parents' guide to cosmetics.

For more information, contact Caroline Rainsford (<a href="mailto:crainsford@ctpa.org.uk">crainsford@ctpa.org.uk</a>).

Understanding our skin





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