

HANDBOOK FOR HAIRDRESSERS

HAZARDOUS INGREDIENTS IN PROFESSIONAL COSMETICS

The aim of this handbook is to provide relevant information on hair products used in salons for you, the hairdresser, to make an assessment of possible health and safety risks for you and your clients associated with using these products. The handbook is not intended to be a complete overview of safety information; rather, it is designed to highlight some of ingredients found in professional cosmetics that should be avoided, if possible, in order to minimize health risks connected to them. Your regular training, product's label information, other safety information that is available to you and use of good judgment on the job will help you avoid unwanted health effects to yourself, your clients and your fellow employees.

Why it is important to know what is in cosmetic products you are using?

Have you (or your clients) experienced any of these symptoms:

- skin redness, dermatitis (especially on hands, for clients – on scalp);
- respiratory problems (shortness of breath, asthma);
- allergic rhinitis (irritation of nose)?

Those are among most common occupational diseases for hair care professionals. Studies have shown that 20 – 50% of all hairdressers have encountered one or more of these conditions at least once in their career, but many of them suffer from chronic and reoccurring diseases. Even more, it has been estimated that hairdressers have 20 % increased chance to suffer from certain types of malignant tumors (cancer). All of the mentioned health conditions have something to do with regular exposure to a cocktail of substances which are used as ingredients of cosmetic products. By identifying the ingredients that pose greater harm or potential negative health effects and choosing products which do not contain them (or contain less such ingredients) you can lower your risk of chemical-related occupational illnesses.

Some of most common occupational diseases for hairdressers:

Dermatitis can occur when the skin comes directly into contact with substances that irritate the skin as well as substances that cause allergy (also known as allergens). Once you have developed an allergy you only need to come into contact with a small amount of the allergen to cause skin reactions in the future. Dermatitis is more common among hairdressers than any other profession. A recent survey of UK hairdressers found that 39% reported hand dermatitis.

Symptoms: dryness, itching, redness. It can develop into flaking, scaling, cracking, bleeding, swelling and blistering. Symptoms can appear on the arms, lips, faces and cause irritation to the eyes.

What can cause dermatitis:

- Lightening/Bleaching agents
- Colorants
- Developers
- Colorant Removers
- Perm Solutions
- Straightening Products
- Shampoos
- Persulphate salts – in bleaching agents
- Paraphenylenediamine (PPD) and
- Resorcinol – in colorants
- Glyceryl thioglycolate/thioglycolate
- salts – in perm and straightening
- solutions
- Perfumes
- Preservatives Etc.

Asthma/respiratory problems can occur when certain types of substances are inhaled, especially on regular basis. As hairdressers work indoors and use cosmetics that can evaporate and emit small particles (such as aerosols or sprays)

that are absorbed by lungs, they are one of risk groups for such occupational health effects.

Symptoms: shortness of breath, cough, chest tightness

What can cause asthma:

- Persulphate salts in bleaching agents
- Rubber latex in hair curling (permanent waves)
- Sericin in shampoos and conditioners
- Ethylenediamine, monoethanolamine in permanent hair dyes

Are professional cosmetic products safe?

Although there is special legislation in place that care for safety of cosmetics and health of consumers, it does not require having a long-term evaluation of cosmetics to professional users (e.g. hairdressers and other beauty specialists) and their health. Cosmetics are not considered as especially harmful chemical products and thus hairdressers are not among professions that are listed as working with chemicals. At the same time, shampoos, hair dyes and other professional cosmetics contain hundreds of various chemicals and hairdressers are exposed to them every day throughout their entire professional career. This can cause various health problems, both showing soon after exposure, such as ones described above, and in long term (several years), such as increased risk of various types of cancer.

According to a NIOSH

(US National Institute for Occupational Safety and Health) report, 30% of the nearly 3,000 chemicals used in cosmetology are classified by the US government as toxic substances.

What can you do to protect your and your clients' health?

- Follow the instructions on the label
- Try to work in well ventilated premises
- Use gloves when working with products that might come in contact with your skin
- Try to use products with less hazardous ingredients (see below). Work with products that you have tested and know that they will not cause you health problems
- If possible, choose eco-labeled products because they contain less hazardous substances. Look for the products with the following eco-labels:



What information can you find on the packaging and what does it tell you about the product?

The packaging of cosmetic products contains quite a lot of information that is relevant for the user and gives hints about its correct use, contents, precautions when used etc.

Here are some of elements of cosmetics labeling and their meaning:



This symbol tells you to look elsewhere in the packaging for additional information, for example in a leaflet, card or tag. It could also be that the packaging is too small to print a list of ingredients on it, so it has been attached to the product in a separate document

Some products contain warnings/cautions on how product should not be used to avoid negative health effects

Net contents – weight of product contained in the packaging



PAO – the „Period After Opening” tells you the time limit within which the product should be used after opening it, provided the product has been stored under normal conditions



The Green Dot denotes that the producer of the product contributes to European programmes for the proper disposal and recycling of all packaging components. This does not indicate anything about the contents of the product



Indicates that the product has not been tested on animals. This does not say anything about the contents of the product

Some products can be labeled as hazardous. This will not be the case for most of products applied to skin or hair directly but, for example, disinfection liquids could have such labels. If you see one of hazard labels below, pay close attention to how this product must be used correctly, it must be described on the label.



Flammable – do not expose to fire



Harmful or irritant – can irritate eyes, skin lungs or other parts of body or can be harmful if inhaled or swallowed. Follow the instructions on label for safe handling and use



Corrosive – can seriously damage any human skin and surfaces if comes in direct contact with them. Be very careful when using such products and use protective equipment



Dangerous to the environment – product does not pose immediate harm to human health but can be very toxic to the environment, e.g. aquatic wildlife. Try to use the product until the end and not leave leftovers. When packaging is empty, close it tightly and only then throw it away

The list of ingredients.

List of ingredients tells you the most about contents of the product and is the key to understanding what properties (both positive and negative) the product could have. The list of ingredients must be on all cosmetic products!

There are some key things to remember even before understanding the meaning of each ingredient name – see the illustration below:

Ingredient names are listed according to a standardised international format and therefore should make no difference as to where the products are sourced from. To help you avoid ingredients which might cause negative effects to your or your clients' health we have composed lists of ingredients found in most commonly used groups of professional cosmetics. The lists are based on ingredients found in products that are sold by the largest whole seller of professional hair care products in the Baltic States and includes summary of survey of several hundreds of products from all major producers of cosmetics. The listed ingredients are chosen on basis of their potential negative effects on human health, both immediate and long-term.

Ingredients are listed in order of their volume in the product. So, the higher the ingredient is, the larger percentage by mass or volume in product it takes

INGREDIENTS

*Aqua, Cyclomethicone,
Mica, Polybutene, Triisostearin,
Prunus Persica Flower Extract,
Betula Alba Oil,
Lavandula Officinalis Oil,
Paraffinum Liquidum,
Propylene Carbonate, Methylpara-
ben, Phenoxyethanol, Propylpara-
ben, Lecithin, Alcohol Denat., BHT,
Parfum, Aroma, Cinnamyl Alcohol,
Citronellol, [+/- CI 15580, CI 45430]*

All ingredient names are listed in International Nomenclature of Cosmetic Ingredients (INCI) format and should not make difference where the product is produced

Ingredient names in Latin mean that these are extracts from plants, flowers, seeds and other natural sources

INGREDIENTS TO AVOID



When purchasing products,
try to avoid these ingredients.
Please remember that most likely
you will not be able to find products
that do not contain any ingredients
that are listed – still, it is better to
choose ones with least number
of such ingredients.

Key for description of hazardous properties:

Allergen – substance is known to cause allergies. They might not appear for all people.

Contact allergy – substance can cause allergy if coming into direct contact with human body (e.g. put on skin, inhaled in lungs, etc.).

Carcinogen – substance is known or suspected to cause malignant tumors (cancer).
Causes contact dermatitis – substance can cause skin dermatitis, if skin is directly exposed to it.

EDC – endocrine disrupting substance. This substance has a potential to affect your hormonal system in a negative way. If absorbed in body regularly, they can increase risk of such health problems as infertility, neurological diseases, diseases connected with correct functioning of glands, etc.

Formaldehyde releaser – substance can release formaldehyde when product is used. Formaldehyde can irritate eyes, lungs and nose, in higher doses and with regular exposure increases risk of cancer.

Immunotoxic – substance can harm immune system, making you more vulnerable for diseases.

Occupational hazards – substance is suspected to cause specific occupational diseases. This can include dermatitis, asthma, rhinitis and others. To be used only strictly according to instructions and in well ventilated conditions.

Oral toxicity – substance can be poisonous if swallowed.

Penetration enhancer – substance can alter the structure of skin so it absorbs more chemical substances than it would normally do.

Sensitizing – substance can increase sensitivity of the body part (e.g. skin) to which it is exposed to.

Skin/eye irritant/toxicant – substance can irritate skin/eyes or cause damage to these organs. In mild cases this usually expresses as redness, dryness, itchiness of skin or eyes.

Hair dyes

Ingredient	Function in product	Possible hazardousness
1-naphthol	Oxidant, colorant	Human skin toxicant and allergen, irritant. Occupational hazards
2,4-diaminophenoxyethanol HCl	hair colorant	Human skin toxicant and allergen
2,6-diaminopyridine	hair dye coupler in oxidation/permanent formulations	Very sensitizing. Allowed in product in maximum concentration on head of 0.15%
2-methyl-5-hydroxyethylaminophenol	hair colorant	Human skin toxicant and allergen
2-methylresorcinol	Hair colorant used in hair color and bleaching	allergen, immunotoxicity, skin toxicant
4-amino-2-hydroxytoluene	hair colorant	Human skin toxicant and allergen
4-amino-m-cresol	hair colorant	Human skin toxicant and allergen
5-amino-6-chloro-o-cresol	hair colorant	Human skin toxicant and allergen; as a hair dye ingredient up to a final on-head concentration of 2.0% poses a risk to the health of the consumer
6-amino- m-cresol	hair colorant	6-amino- m-cresol; genotoxic potential
6-hydroxyindole	hair colorant	Irritation (skin, eyes, or lungs)
alpha-isomethyl ionone	aromatizer	allergen/immonotoxic
ammonia	Fragrance Ingredient; pH Adjuster	Occupational hazards, irritation of eyes and lungs
ammonium chloride	Fragrance Ingredient; Viscosity Increasing Agent - Aqueous; BUFFERING; MASKING; VISCOSITY CONTROLLING	Irritation (skin, eyes, or lungs). Occupational hazards
ammonium hydroxide	antibacterial agent, pH adjuster, denaturant	Irritant, can cause allergies, dermatitis, asthma in case of long term exposure
benzyl alcohol	Preservative; Solvent; Viscosity Decreasing Agent	Contact allergy
benzyl benzoate	fragrance/solvent/preservative	allergen/contact dermatitis
benzyl salicylate	fragrance Ingredient; UV absorber	human immune system toxicant and allergen, endocrine disruption concern
BHA (butylated hydroxyanisole)	preservative and stabilizer	EDC

Ingredient	Function in product	Possible hazardousness
Butylated hydroxytoluene (BHT)	preservative in personal care products	human immune toxicant and allergen; Human skin toxicant and allergen
Butylparaben	preservative	EDC
Butylphenyl Methylpropional (LILIAL)	synthetic scent ingredient; MASKING	associated with allergies and contact dermatitis
ceteareth-20	Surfactant - Cleansing Agent; Surfactant - Solubilizing Agent	penetration enhancer which alters the skin structure, allowing substances to penetrate deeper into the skin. It is highly unsafe to use on irritation or damaged skin.
ceteareth-60 myristyl glycol	Surfactant - Emulsifying Agent	penetration enhancer which alters the skin structure, allowing substances to penetrate deeper into the skin. It is highly unsafe to use on irritation or damaged skin.
Cocamide DEA	Surfactant - Foam Booster; Viscosity Increasing Agent - Aqueous; EMULSIFYING; EMULSION STABILISING; FOAM BOOSTING; VISCOSITY CONTROLLING	Possible human carcinogen, Human skin toxicant or allergen
cocamidopropyl betaine	Hair Conditioning Agent, Surfactant - Foam Booster, Surfactant - Cleansing Agent	irritation and allergies (allergic contact dermatitis)
coumarin	aromatizer	human immune system toxicant or allergen
ethanolamine	pH Adjuster; BUFFERING	Human skin toxicant, allergen, human immune and respiratory toxicant or allergen - can cause asthma
Ethylparaben	preservative	EDC
eugenol	Denaturant; Fragrance Ingredient;	human immune system toxicant and allergen
ext.violet.2	Colorant	Human skin toxicant and allergen
glyceryl laurate	Surfactant - Emulsifying Agent	Human irritant (only for products for use around the eyes, on the skin, or may be aerosolized)
hexyl cinnamal	fragrance, masking	allergen/immonotoxic
Hydroxyisohexyl 3-cyclohexene carboxaldehyde (Lyrall)	synthetic fragrance	fragrance allergen, contact dermatitis
Isobutylparaben	preservative	Human skin toxicant and allergen, EDC
m-Aminophenol	hair colorant	Human skin toxicant and allergen, possible carcinogen

Ingredient	Function in product	Possible hazardousness
Methylparaben	Fragrance Ingredient; Preservative	EDC
N, N bis (2hydroxyethyl)-p-phenylenediamine sulfate	hair colorant	Human skin toxicant and allergen
n-phenyl-p-phenylenediamine	Hair Colorant	Human skin toxicant and allergen
p-methylaminophenol sulfate	Hair Colorant	Human skin toxicant and allergen, occupational hazards
p-phenylenediamine	Colorant	cancerogen, skin irritation, dermatitis
propylparaben	preservative	EDC
resorcinol	hair colorant, oxidant, Antiacne Agent; Denaturant; External Analgesic, Fragrance Ingredient	skin irritant, toxic to the immune system, can cause allergy, EDC
sodium metabisulfite	Antioxidant; Reducing Agent; PRESERVATIVE	irritant
Toluene -2,5-diamine sulfate, toluene -2,5-diamine	used as an oxidative hair colouring agent (precursor)	Very sensitizing, absorbed through skin

Hair color developers

Ingredient	Function in product	Possible hazardousness
ceteareth-20	Surfactant - Cleansing Agent; Surfactant - Solubilizing Agent	penetration enhancer which alters the skin structure, allowing substances to penetrate deeper into the skin. It is highly unsafe to use on irritation or damaged skin.
Ceteareth-25	Surfactant - Cleansing Agent; Surfactant - Solubilizing Agent	Penetration enhancer, not to be used on damaged skin
hexyl cinnamal	fragrance, masking	allergen/immonotoxic
methylparaben	Fragrance Ingredient; Preservative	EDC
oxyquinoline sulfate	Chelating Agent; Cosmetic Biocide; ANTIMICROBIAL; EMULSION STABILISING	Occupational hazards, irritating and toxic if used around mouth or lips
PEG-40 castor oil	Surfactant - Cleansing Agent; Surfactant - Solubilizing Agent	Human skin toxicant or allergen

Ingredient	Function in product	Possible hazardousness
polysorbate 60	Fragrance Ingredient; Surfactant - Emulsifying Agent; Surfactant - Solubilizing Agent	Limited evidence of sense organ toxicity, contamination concerns with 1,4 dioxane and ethylene oxide, data gaps

Bleaches

Ingredient	Function in product	Possible hazardousness
acrylates/octylacrylamide copolymer	film-forming and fixative agent	asthma
alpha-isomethyl ionone	aromatizer	allergen/immonotoxic
ammonium persulfate	Oxidizing Agent; BLEACHING; OXIDISING	Human skin toxicant, allergen, occupational hazards
Ceteareth-25	Surfactant - Cleansing Agent; Surfactant - Solubilizing Agent	penetration enhancer which alters the skin structure, allowing substances to penetrate deeper into the skin. It is highly unsafe to use on irritation or damaged skin.
Citronellol	aromatizer	Possible human immune system toxicant or allergen
coumarin	aromatizer	human immune system toxicant or allergen
hexyl cinnamal	fragrance, masking	allergen/immonotoxic
potassium persulfate	Oxidizing Agent; OXIDISING	Human skin toxicant, allergen, occupational hazards
salicylic acid	Fragrance Ingredient; Hair Conditioning Agent; Skin-Conditioning Agent	Irritant
sodium persulfate	oxidising agent	Human skin toxicant, allergen, occupational hazards
tetrabromophenol blue	Hair dye - used as a direct dye in oxidative and non-oxidative hair colouring products	The final concentration on the scalp can be up to 0.2%

Hair straightening products

Ingredient	Function in product	Possible hazardousness
alpha-isomethyl Ionone	aromatizer	allergen/immonotoxic
ammonium hydroxide	antibacterial agent, pH adjuster, denaturant	Irritant, can cause allergies, dermatitis, asthma in case of long term exposure
Ammonium thioglycolate	Hair-Waving/Straightening Agent; Reducing Agent;	skin toxicant, allergen
benzyl salicylate	fragrance Ingredient; UV absorber	human immune system toxicant or allergen, endocrine disruption concern
Butylated hydroxytoluene (BHT)	preservative in personal care products	human immune toxicant or allergen; Human skin toxicant or allergen
Butylparaben	preservative	EDC
Butylphenyl Methlypropional (LILIAL)	synthetic scent ingredient; MASKING	associated with allergies and contact dermatitis
ceteareth-20	Surfactant - Cleansing Agent; Surfactant - Solubilizing Agent	penetration enhancer which alters the skin structure, allowing substances to penetrate deeper into the skin. It is highly unsafe to use on irritation or damaged skin.
Ceteareth-25	Surfactant - Cleansing Agent; Surfactant - Solubilizing Agent	Penetration enhancer, not to be used on damaged skin
Citronellol	aromatizer	Possible human immune system toxicant or allergen
Cocoamidopropylbetaine	Hair Conditioning Agent, Surfactant - Foam Booster, Surfactant - Cleansing Agent	irritation or allergies (allergic contact dermatitis)
ethanolamine	pH Adjuster; BUFFERING	Human skin toxicant, allergen, human immune and respiratory toxicant or allergen - can cause asthma
Ethylparaben	preservative	EDC
hexyl cinnamal	fragrance, masking	allergen/immonotoxic
imidazolidinyl urea	antimicrobial preservative	contact allergy
Isobutylparaben	preservative	Human skin toxicant or allergen, EDC

Ingredient	Function in product	Possible hazardousness
oxyquinoline sulfate	Chelating Agent; Cosmetic Biocide; ANTIMICROBIAL; EMULSION STABILISING	Occupational hazards, irritating and toxic if used around mouth or lips
phenoxyethanol	preservative	Irritant after constant exposure
Propylparaben	preservative	Human skin toxicant or allergen, EDC

Permanent waves

Ingredient	Function in product	Possible hazardousness
ammonia	Fragrance Ingredient; pH Adjuster	Occupational hazards, irritation of eyes and lungs
ammonium hydroxide	antibacterial agent, pH adjuster, denaturant	Irritant, can cause allergies, dermatitis, asthma in case of long term exposure
Ammonium thioglycolate	Hair-Waving/Straightening Agent; Reducing Agent;	skin toxicant, allergen
amyl cinnamal	fragrance, masking	allergen/contact dermatitis
benzyl alcohol	Preservative; Solvent; Viscosity Decreasing Agent	Contact allergy
benzyl benzoate	fragrance/solvent/preservative	allergen/contact dermatitis
benzyl salicylate	fragrance Ingredient; UV absorber	human immune system toxicant or allergen, endocrine disruption concern
butylparaben	preservative	EDC
Butylphenyl Methlypropriolal (LILIAL)	synthetic scent ingredient; MASKING	associated with allergies and contact dermatitis
Citronellol	aromatizer	Possible human immune system toxicant or allergen
Cocoamidopropylbetaine	Hair Conditioning Agent, Surfactant - Foam Booster, Surfactant - Cleansing Agent	irritation or allergies (allergic contact dermatitis)
ethanolamine	pH Adjuster; BUFFERING	Human skin toxicant, allergen, human immune and respiratory toxicant or allergen - can cause asthma
Ethylparaben	preservative	EDC

Ingredient	Function in product	Possible hazardousness
methylchloroisothiazolinone	preservative	allergen
methylisothiazolinone	preservative	allergen
methylparaben	Fragrance Ingredient; Preservative	EDC
PEG-35 castor oil	Surfactant - Emulsifying Agent; Surfactant - Solubilizing Agent	Human skin toxicant or allergen
PEG-5 cocomonium methosulfate	Conditioning agent, antistatic agent	irritation to skin, eyes
phenoxyethanol	preservative	Irritant after constant exposure
propylparaben	preservative	EDC
salicylic acid	Fragrance Ingredient; Hair Conditioning Agent; Skin-Conditioning Agent	Irritant
thioglycolic acid	Antioxidant; Depilating Agent; Hair-Waving/Straightening Agent; Reducing Agent	Human skin toxicant and allergen. Hairdressers should avoid or minimize consumer skin exposure

Hair dye removers

Ingredient	Function in product	Possible hazardousness
alpha-isomethyl ionone	aromatizer	allergen/immonotoxic
ammonium hydroxide	antibacterial agent, pH adjuster, denaturant	Irritant, can cause allergies, dermatitis, asthma in case of long term exposure
benzyl alcohol	Preservative; Solvent; Viscosity Decreasing Agent	Contact allergy
benzyl benzoate	fragrance/solvent/preservative	allergen/contact dermatitis
benzyl salicylate	fragrance Ingredient; UV absorber	human immune system toxicant or allergen, endocrine disruption concern
Butylphenyl Methlypropional (LILIAL)	synthetic scent ingredient; MASKING	associated with allergies and contact dermatitis

Ingredient	Function in product	Possible hazardousness
ceteareth-20	Surfactant - Cleansing Agent; Surfactant - Solubilizing Agent	penetration enhancer which alters the skin structure, allowing substances to penetrate deeper into the skin. It is highly unsafe to use on irritation or damaged skin.
Cocamide DEA	Surfactant - Foam Booster; Viscosity Increasing Agent - Aqueous; EMULSIFYING; EMULSION STABILISING; FOAM BOOSTING; VISCOSITY CONTROLLING	Possible human carcinogen, Human skin toxicant or allergen
diazolidinyl urea	preservative	chemical release concerns - formaldehyde, Known human skin toxicant or allergen
Ethylparaben	preservative	EDC
hexyl cinnamal	fragrance, masking	allergen/immonotoxic
imidazolidinyl urea	antimicrobial preservative	contact allergy
methylchloroisothiazolinone	preservative	allergen
methylisothiazolinone	preservative	allergen
methylparaben	Fragrance Ingredient; Preservative	EDC
phenoxyethanol	preservative	Irritant after constant exposure
Propylparaben	preservative	Human skin toxicant or allergen, EDC
sodium hydroxymethane sulfinic acid	oxidizing agent	can cause dermatitis, irritant of respiratory tract, eyes. Formaldehyde releaser

Shampoos

Ingredient	Function in product	Possible hazardousness
Alpha Isomethyl Ionone	aromatizer	allergen/immonotoxic
behentrimonium chloride	hair conditioning agent, preservative	allergen
Benzyl Alcohol	Preservative; Solvent; Viscosity Decreasing Agent	Contact allergy
benzyl benzoate	fragrance/solvent/preservative	allergen/contact dermatitis
benzyl salicylate	fragrance Ingredient; UV absorber	human immune system toxicant or allergen, endocrine disruption concern
Butylated hydroxytoluene (BHT)	preservative in personal care products	human immune toxicant or allergen; Human skin toxicant or allergen
Butylparaben	preservative	EDC
Butylphenyl Methlyproprional (LILIAL)	synthetic scent ingredient; MASKING	associated with allergies and contact dermatitis
ceteareth-20	Surfactant - Cleansing Agent; Surfactant - Solubilizing Agent	penetration enhancer which alters the skin structure, allowing substances to penetrate deeper into the skin. It is highly unsafe to use on irritation or damaged skin.
Citronellol	aromatizer	Possible human immune system toxicant or allergen
Cocamide DEA	Surfactant - Foam Booster; Viscosity Increasing Agent - Aqueous; EMULSIFYING; EMULSION STABILISING; FOAM BOOSTING; VISCOSITY CONTROLLING	Possible human carcinogen, Human skin toxicant or allergen
Cocoamidopropylbetaine	Hair Conditioning Agent, Surfactant - Foam Booster, Surfactant - Cleansing Agent	irritation or allergies (allergic contact dermatitis)
coumarin	aromatizer	human immune system toxicant or allergen
D&C red No. 17 (CI 26100)	colorant	expected to be toxic or harmful
diazolidinyl urea	preservative	chemical release concerns - formaldehyde, Known human skin toxicant or allergen
DMDM hydantoin	preservative	Human skin toxicant and allergen, chemical release concerns - formaldehyde

Ingredient	Function in product	Possible hazardousness
ethylhexyl methoxycinnamate	UV ABSORBER; UV FILTER	EDC
Ethylparaben	preservative	EDC
eugenol	Denaturant; Fragrance Ingredient;	human immune system toxicant and allergen
ext.violet.2	Colorant	Human skin toxicant and allergen
glyceryl laurate	Surfactant - Emulsifying Agent	Human irritant (only for products for use around the eyes, on the skin, or may be aerosolized)
hexyl cinnamal	fragrance, masking	allergen/immonotoxic
hydroxycitronellal	fragrance ingredient	Known human immune system toxicant or allergen
IMIDAZOLIDINYL UREA	antimicrobial preservative	contact allergy
iodopropynyl butylcarbamate	preservative	oral toxicity
Isobutylparaben	preservative	Human skin toxicant or allergen, EDC
Methylchloroisothiazolinone	preservative	allergen, neurotoxic
Methylisothiazolinone	preservative	allergen
Methylparaben	Fragrance Ingredient; Preservative	EDC
phenoxyethanol	preservative	Irritant after constant exposure
polyquaternium-5	Antistatic Agent; Film Former; Hair Fixative; FILM FORMING	moderate to high toxicity concern in humans
Propylparaben	preservative	Human skin toxicant or allergen, EDC
Quaternium-15	Antistatic Agent; Preservative	human skin sensitizer toxicant or allergen, chemical release concerns - formaldehyde
triethanolamine	Fragrance Ingredient; pH Adjuster; Surfactant - Emulsifying Agent	Human immune and respiratory toxicant or allergen

Hair styling products

Ingredient	Function in product	Possible hazardousness
acrylates/octylacrylamide copolymer	film-forming and fixative agent	asthma
alpha-isomethyl Ionone	aromatizer	allergen/immonotoxic
amyl cinnamal	fragrance, masking	allergen/contact dermatitis
benzyl alcohol	Preservative; Solvent; Viscosity Decreasing Agent	Contact allergy
benzyl benzoate	fragrance/solvent/preservative	allergen/contact dermatitis
butylphenyl methylpropional/LILIAL	fragrance	allergen/contact dermatitis
ethylhexyl methoxycinnamate/OCTINOXATE	UV ABSORBER; UV FILTER	EDC
geraniol	aromatizer	allergen
hexyl cinnamal	fragrance, masking	allergen/immonotoxic
imidazolidinyl urea	antimicrobial preservative	contact allergy
IODOPROPYNYL BUTYLCARBAMATE	preservative	oral toxicity
methylchloroisothiazolinone	preservative	allergen
methylisothiazolinone	preservative	allergen
Methylparaben	Fragrance Ingredient; Preservative	EDC