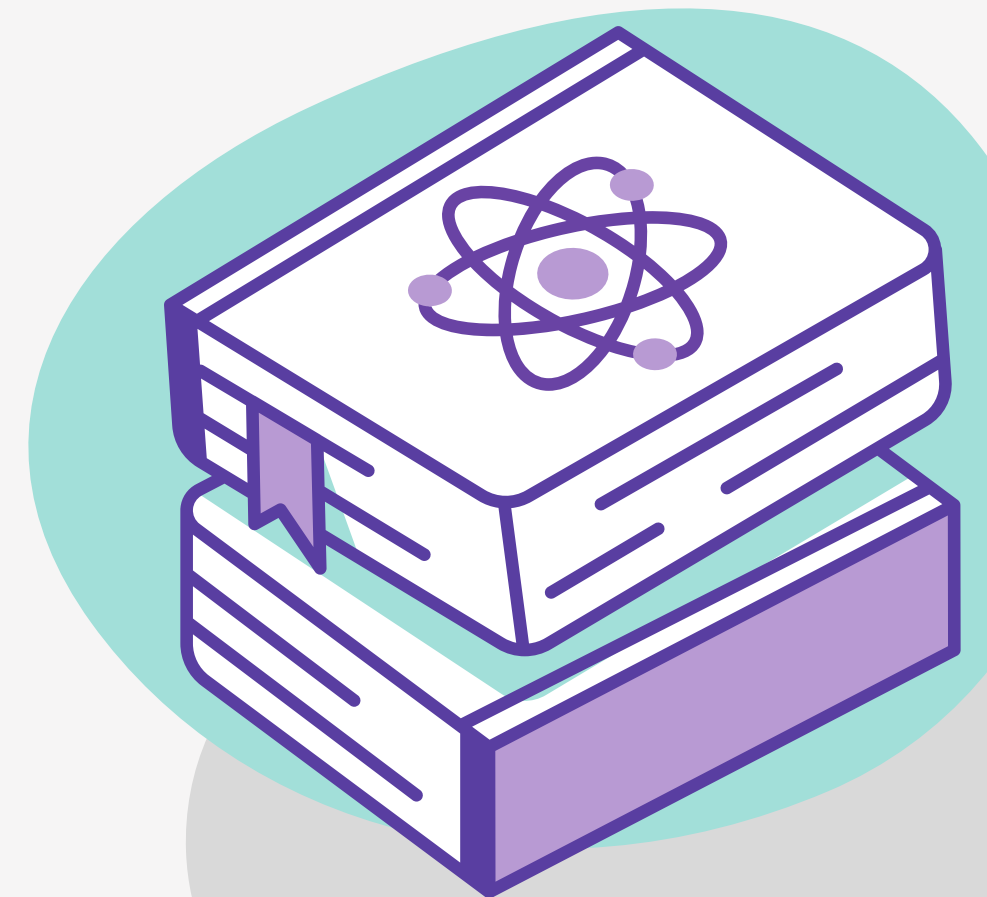
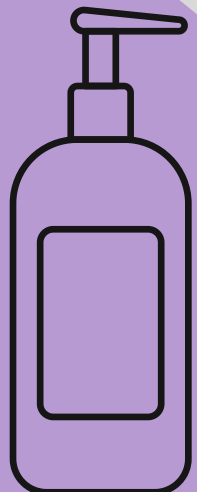
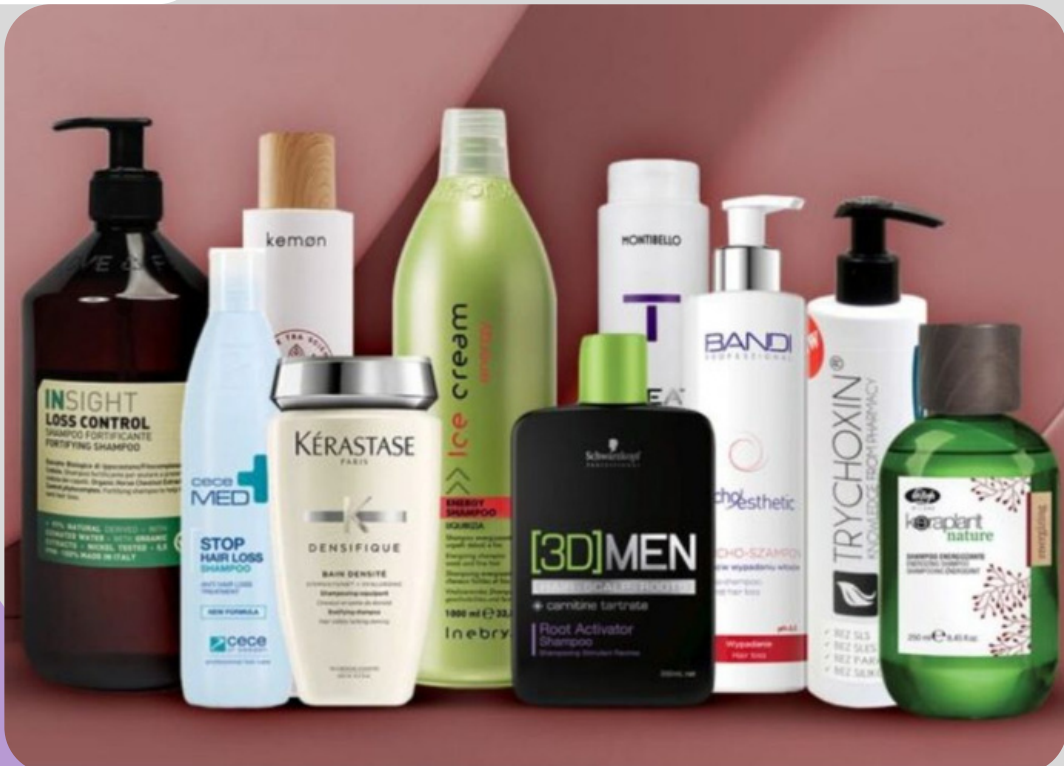
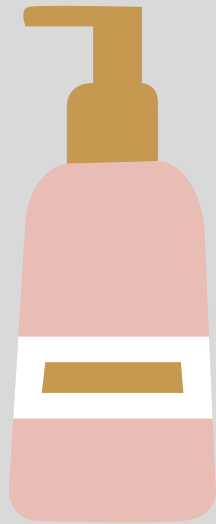


Comparison of ingredients of three shampoos

Duda Oleksandra 1a



Shampoos



L'ORÉAL
PARIS
ELSEVE
Total Repair 5

100%
BUTELKA Z RECYKLINGU*



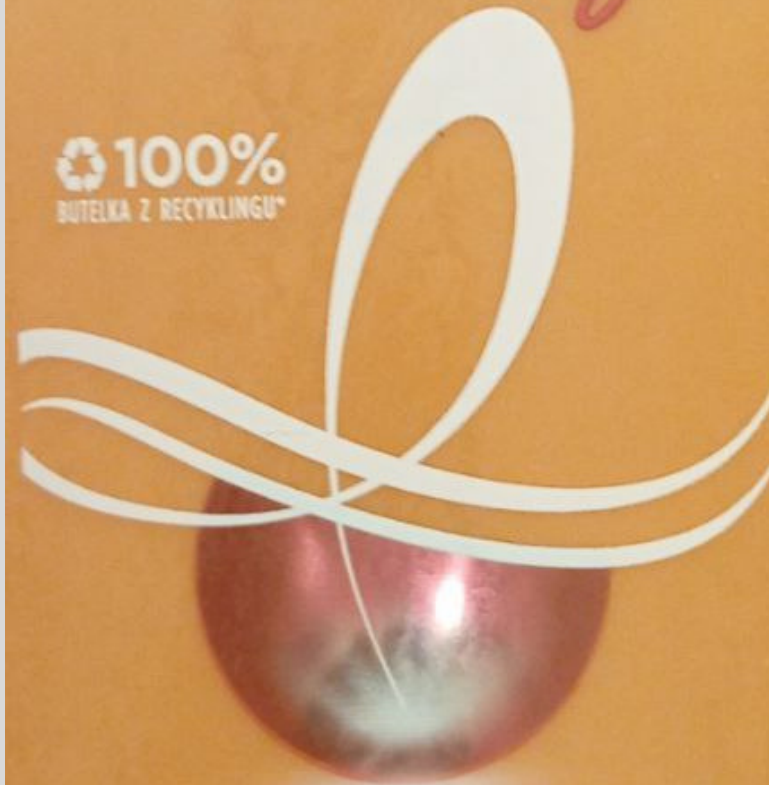
**SZAMPON
REGENERUJĄCY**

2% ODBUDOWUJĄCY KOMPLEKS
Z KERATIN^{KS}

WŁOSY ZNISZCZONE

L'ORÉAL
PARIS
ELSEVE
Dream long

100%
BUTELKA Z RECYKLINGU*



**SZAMPON
ODBUDOWUJĄCY**

z keratyną roślinną
i olejkiem rycynowym
Intensywna regeneracja
długości włosów

**WŁOSY DŁUGIE,
ZNISZCZONE**

L'ORÉAL
PARIS
ELSEVE
Full Resist
[AMINEXIL]

100%
BUTELKA Z RECYKLINGU*



NOWOŚĆ

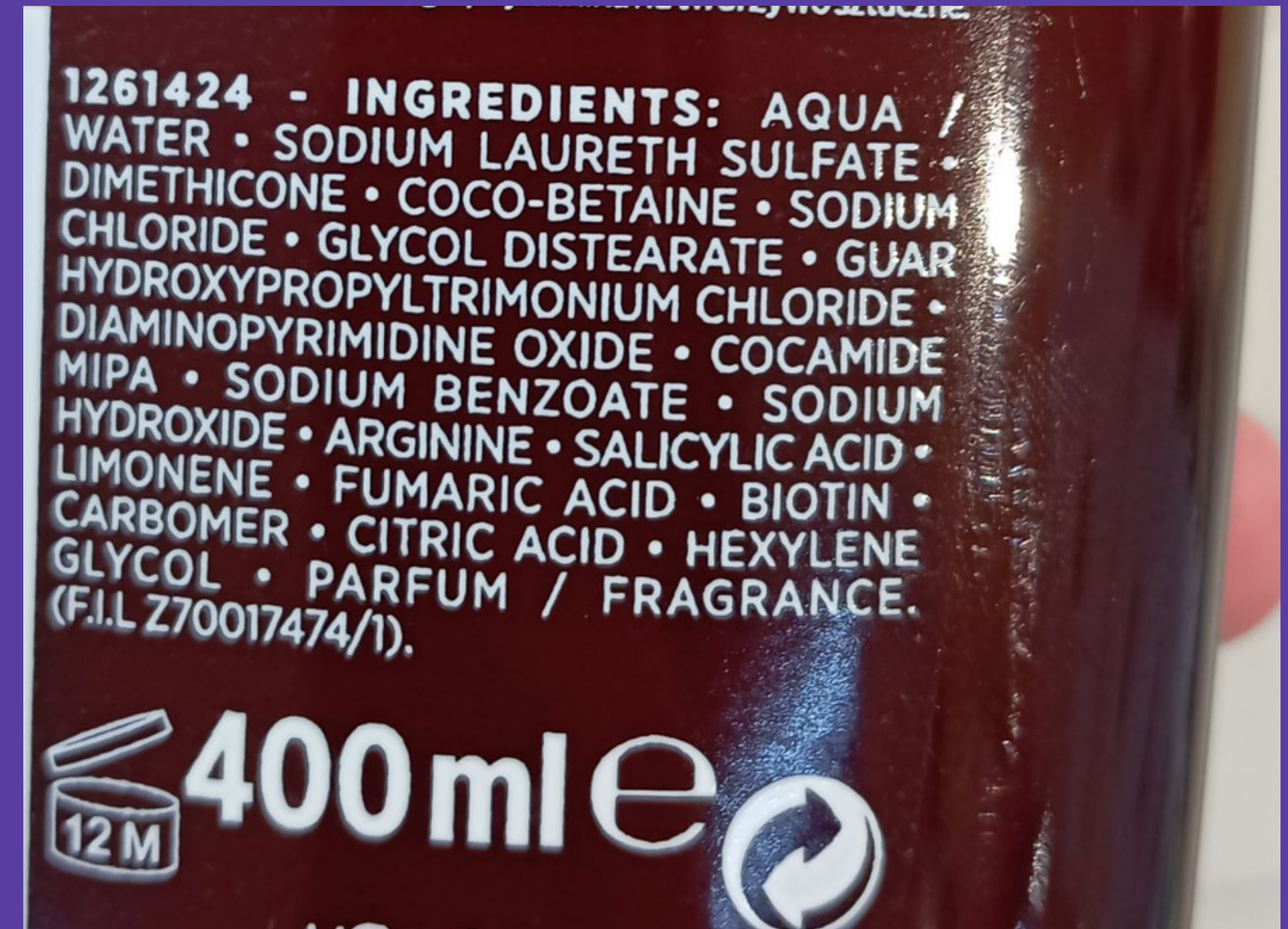
**SZAMPON
WZMACNIAJĄCY**
[aminexil + biotyna + arginina]

2x MNIJ WŁOSÓW
NA SZCZOTCE**

WŁOSY OSŁABIONE Z TENDENCJĄ DO
WYPADANIA W POWODU ŁAMLIWOŚCI

Ingredients

Aqua/water
Sodium laureth sulfate
Dimethicone
Coco-betaine
Sodium chloride
Glycol distearate
Guar hydroxypropyltrimonium chloride
Diaminopyrimidine oxide
Cocamide mipa
Sodium benzoate
Arginine
Salicylic acid
Biotin
Carbomer
Citric acid
Hexylene glycol
Parfum/fragrance



Ingredients (rebuilding shampoo)

Aqua/water
Sodium laureth sulfate
Glycerin
Dimethicone
Coco-betaine
Sodium chloride
Glycol distearate
Guar hydroxypropyltrimonium chloride
Niacinamide
Cocamide mipa
Ricinus communis seed oil/castor seed oil
Sodium benzoate
Sodium hydroxide
Hydroxycitronellal
Hydrolyzed wheat protein
Hydrolyzed corn protein
Hydrolyzed soy protein

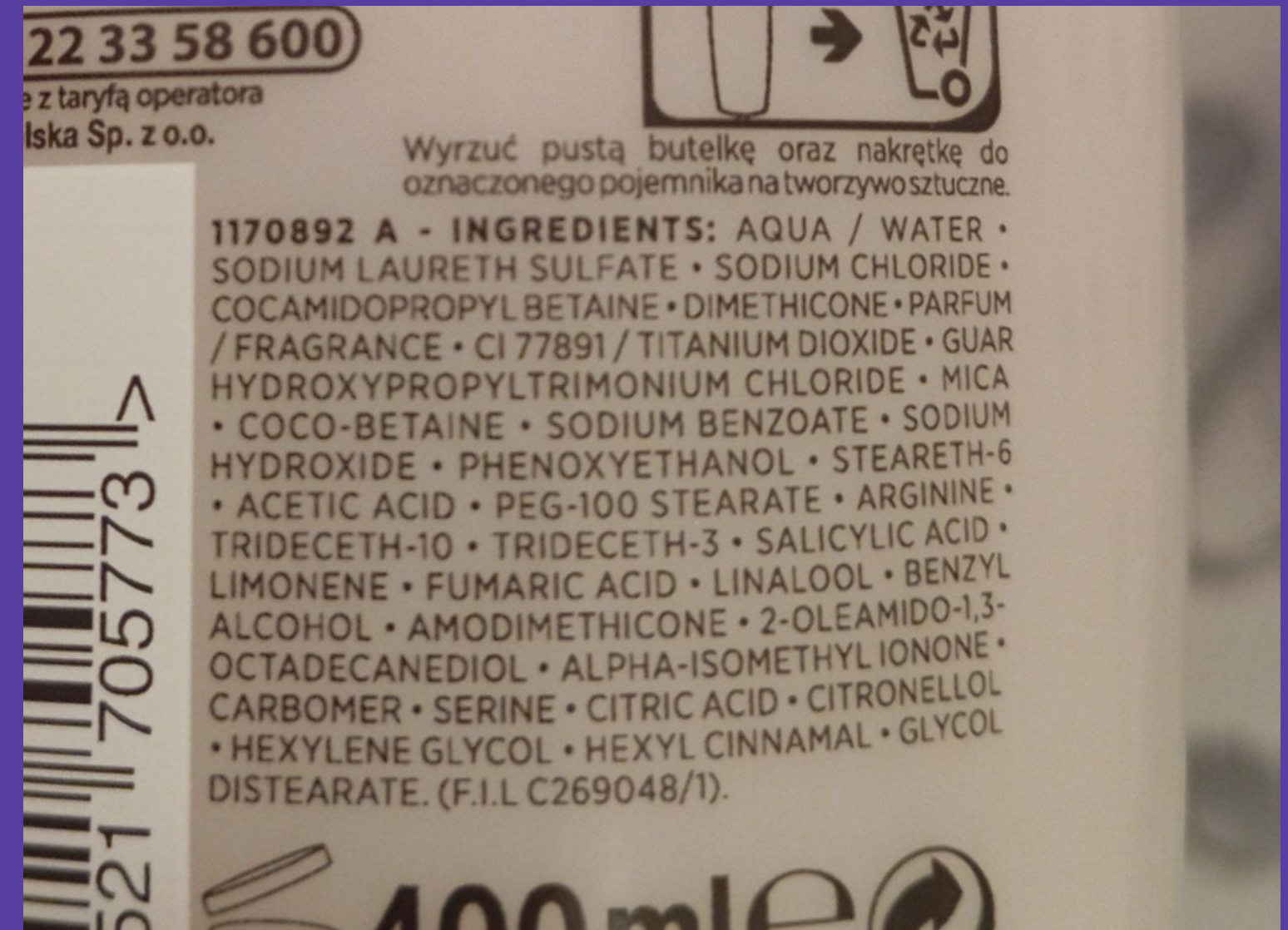
Phenoxyethanol
Salicylic acid
Limonene
Fumaric acid
Benzyl salicylate
Linalool
Benzyl alcohol
Panthenol
Alpha-isomethyl ionone
Carbomer
Citric acid
Citronella
Coumadin
Hexylene glycol
Hexyl cinnamal
Parfum/fragrance



Ingredients (regenerating shampoo)

Aqua/water
Sodium Laureth sulfate
Sodium chloride
Cocamidopropyl betaine
Dimethicon
Parfum/fragrance
Ci 77891/titanium dioxide
Guar hydroxypropyltrimonium chloride
Mica
Coco-betaine
Sodium benzoate
Sodium hydroxide
Phenoxyethanol
Steareth-6
Acetic acid
Peg-100 stearate
Arginine

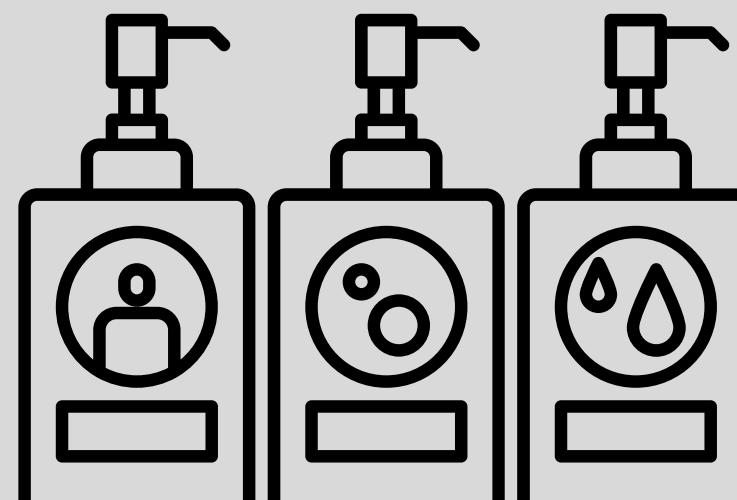
Trideceth-10
Trideceth-3
Salicylic acid
Limonene
Fumaric acid
Linalool
Benzyl alcohol
Amodimethicone
2-oleamido-1,3-octadecanediol
Alpha-isomethylionone
Carbomer
Serine
Citric acid
Citronellol
Hexylene glycol
Hexyl cinnamal
Glycol distearate



The same components

Aqua/water
Sodium laureth sulfate
Sodium chloride
Dimethicone
Parfum/fragrance
Sodium benzoate
Sodium hydroxide
Salicylic acid

Limonene
Coco-betaine
Carbomer
Citric acid
Hexylene glycol
Fumaric acid
Guar hydroxypropyltrimonium chloride
Glycol distearate

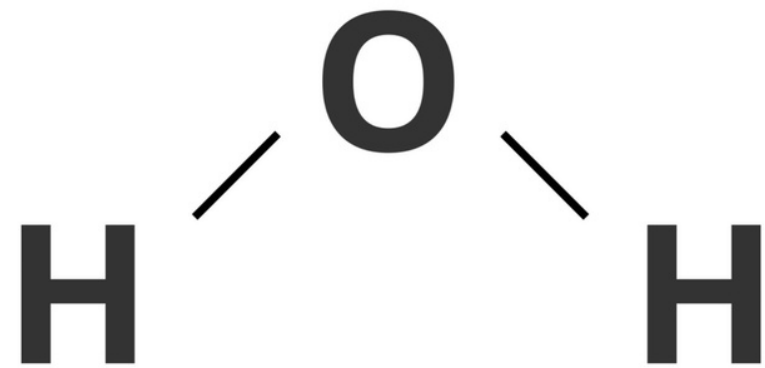


Aqua/water

Guar hydroxypropyltrimonium chloride

Aqua/water - In fact, up to 80% of shampoo is water. This is particularly important because it ensures all the ingredients blend together so your shampoo can clean effectively.

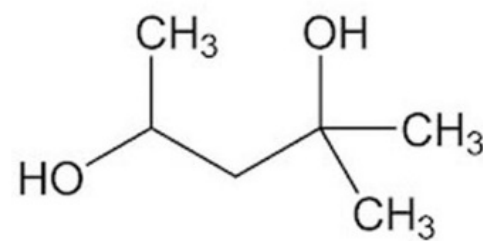
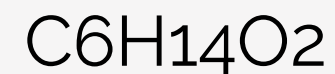
H₂O



C₆H₁₆NO₂. It is a positively charged ingredient that cancels the negative charge on hair causing it to have a static or become tangled. This ingredient makes the hair silky smooth without weighing them down. The main function is to extend conditioning properties to hair care products.

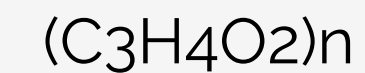
Hexylene glycol

It is a clear, colorless liquid which is used in cosmetic products and products of personal care. Many researches have shown that Hexylene Glycol is a safe and effective ingredient. It dissolves other ingredients in a product and enhances its stability and texture. It also has a low viscosity. It is used as a viscosity agent and solvent to improve the texture and stability of formulations. It acts as an emollient in shampoos and conditioners to provide hydration to the shafts.



Carbomer

It is a thickening agent that helps improve the texture of the products and also binds the other ingredients together - preventing them from separating. It comes in the form of white fluffy powder, but in the cosmetic industry, it is used in the form of gel or liquid. It controls the stickiness and consistency of the formulation in hair care products and makes them more spreadable. It also works well with almost all the other ingredients. Carbomer is an inactive ingredient that helps the active ingredients in formulation work better. They are used in a variety of cosmetic, skin care, and hair care products because of their multiple uses.



Parfum/fragrance

Parfum/fragrance - The fragrance in shampoo is created by a number of different substances. It comes from ingredients that are natural, such as essential oils, or it can come from synthetic chemicals that are made using petroleum. Approximately 95% of shampoos contain perfume.

Limonene

Limonene - Limonene is a naturally occurring organic compound. The word "limo" highlights its close relationship with citrus fruits as it is abundantly present in the essential oil extracted from lemon, grapefruit, and mandarin peels. Limonene is a faint pale yellow liquid having a characteristic lemon-like aroma which is widely used in food and personal care formulation as well as in perfumery products. From providing instant hydration to fighting scalp conditions, limonene can work wonders on your mane.

Glycol distearate

Glycol distearate - It is used in shampoos as a pearling agent, viscosity modifier, surfactant.

Fumaric acid

Fumaric acid - Fumaric Acid is a four carbon dicarboxylic acid (a carbohydrate) that is an intermediate of the citric acid cycle.

Coco-betaine

Coco betaine is a derivative of cocamide and glycine amide. This pale yellow-coloured beauty ingredient is derived from coconut oil. Coco Betaine is a natural surfactant with a pH value between 5 and 6. It is commonly used in organic formulations as it is extracted from coconut oil and contains no synthetic material. Coco refers to coconut oil, and betaine is an amino acid from beets. The mucous membranes and skin are particularly responsive to Coco betaine and easily absorbed into the skin. It is gentle on your skin and exhibits excellent cleansing and foaming properties, due to which it is readily used in baby products.

Citric acid

Citric Acid is a natural organic acid which is found in citrus fruits (such as lemon and lime). Citric acid is safe to use for everyone except people who are allergic to citrus. Citric acid is actually an alpha hydroxy acid (AHA), which is a type of hydroxy acid that is often used in skincare products for its exfoliating properties. However, in hair care products, its purpose is slightly different. Citric acid also removes excess oil from the scalp, and prevents the growth of microbes. Citric acid is commonly used in hair care products as it helps to lower the pH levels of many products such as shampoo. Most shampoos have high alkaline pH levels, which can strip the hair of its natural oils and leave it dry and brittle.

By adding citric acid, it helps to lower the pH levels and maintain a healthy pH balance, ensuring your hair stays healthy and nourished after using the products. Citric acid makes your hair look shinier and more lustrous. Citrus acid maintains the ideal pH level for your hair which aids in keeping the hair cuticles sealed. As a result, hair looks healthier and more radiant since the shafts can better retain moisture and reflect light.

Sodium chloride

Sodium chloride, which you may know better as table salt, is used as a thickener in shampoos and conditioners containing sodium lauryl sulfate. Sodium Chloride may also be the cause of dry and itchy scalp in addition to hair loss. As one of the top ingredients in many shampoos, sodium chloride can affect the color of your hair and dehydrate the strands.

Sodium benzoate

Sodium benzoate is added as an antimicrobial agent to prevent the growth of bacteria, fungi, mold, and other bugs that could ruin the product. When dissolved, sodium benzoate in hair products dissociates into benzoic acid ions, which get absorbed into the cells of any existing microorganisms that might happen to be in the water. Sodium benzoate is safe for use at concentration of no more than 5%.

Dimethicone

Dimethicone in shampoo and other hair products typically leaves tresses shinier and easier to detangle. However, waxy buildup can prevent water from making contact with the hair cuticle, leading to dryer and/or damaged locks. And that buildup can also weigh down curly and/or fine hair – the opposite of what you want! Dimethicone, also known as polydimethylsiloxane (PDMS), is a silicone-based polymer derived from silica, a natural component found in sand and quartz. Dimethicone is a form of silicone with two attached methyl groups that gives your hair a soft and smooth feel. However, this ingredient will only dry out your hair in the long run, cause build-up at your roots, and irritate or burn your scalp. The build-up on your scalp will block out moisture, stop the nutrient flow to your hair, and create an abundance of residue and dirt that can clog your pores.

Sodium laureth sulfate

Sodium laureth sulfate -

Theoretically, they are not harmful because they usually occur in low concentrations.

They should not cause any adverse reactions. However, we must be aware that these chemical substances may excessively dry both the hair and the scalp.

This may lead to disruption of the natural sebum regulation, making the scalp and hair greasy. Therefore, you need to wash your hair more often to keep it fresh.

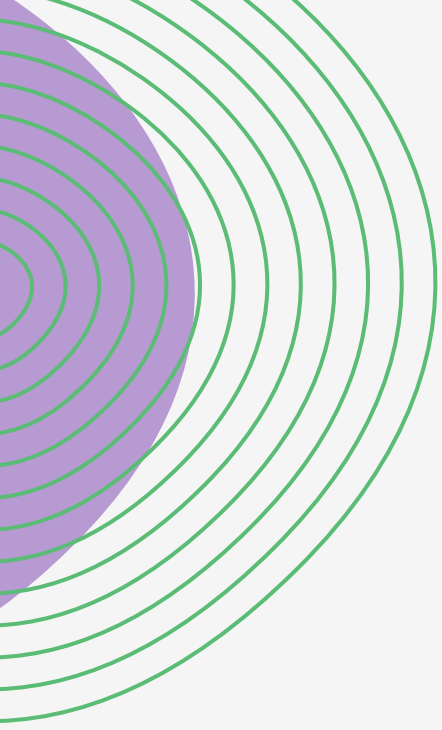
Sodium hydroxide

Sodium hydroxide - Sodium hydroxide is overall considered safe for general use — but only in small amounts, at lower concentrations. sodium hydroxide shows up in so many products, because it has a specific job: to help balance and maintain the pH of skin care products. If you have sensitive skin, you might be even more likely to experience an unwanted reaction when using products that contain sodium hydroxide.

Salicylic acid

Salicylic acid - Salicylic acid shampoo is a medication that breaks down layers of thick skin on your scalp. It treats dandruff, psoriasis, eczema and dermatitis. SALICYLIC ACID (SAL i SIL ik AS id) reduces swelling, redness, itching, or rashes caused by skin conditions, such as psoriasis. It may also be used to treat seborrheic dermatitis, a condition that causes dry, flaky, and itchy skin. It works by reducing redness, irritation, and scaling on the skin.





Conclusion

It is impossible to say for sure whether these shampoos are safe because they contain both safe and potentially dangerous ingredients, but it is important to remember that these substances have certain limits in the concentration in which they are safe, if the amount of one or another ingredient is exceeded, it can be dangerous and cause allergic reactions or contact dermatitis, and there can be both positive and negative effects on the hair.

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Thank you for your attention