



## HOW WE RATE SUBSTANCES

in the GreenScan app

Check your cosmetics for risky ingredients.

### How to use this document

Methodology, colour scale and limits of the indicative ingredient rating.



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## About the GreenScan app

The GreenScan app is a mobile application that makes it easier to understand the ingredients in cosmetic products. After scanning a barcode or searching for a product, it displays an overview of the ingredients and highlights those that may be problematic for health or the environment.

The app is intended for information purposes. It does not replace professional advice, a doctor, a pharmacist or the manufacturer's official documentation. It serves as a practical guide when shopping and when trying to better understand what we regularly use on our skin, hair or body.

The GreenScan app is and will remain a non-profit project. It is funded from various sources, including European grants, our own resources and donations, always with an emphasis on independence, transparency and the absence of conflicts of interest. If you have an idea for supporting the project, for example through translations, expert consultation, adding data or other assistance, we would be pleased to hear from you.

### CONTACT

Contact: [info@greenscan.cz](mailto:info@greenscan.cz)

## How to use the app

Treat the product rating as general guidance, not as an absolute verdict. We recommend always opening the individual ingredients to see why the app assesses them in that particular way.

### It is particularly important to consider:

- the function of the ingredient in the product,
- where it may have a negative effect,
- whether it concerns health, the environment or both,
- how often you use the product,
- whether the same problematic ingredient appears in several products that you use every day.



### Important context

An ingredient may have a different significance in a product used only occasionally than in a product used every day over a long period. The app is not intended to create fear, but to help users understand the wider context and make more informed decisions.

# Ingredient assessment

The assessment in the app is indicative because the risk posed by a substance depends on its concentration, dose, duration and frequency of use, as well as how the product is actually used. The same substance may have a different significance in a rinse-off product than in a product that remains on the skin. Skin condition, age, health, allergies, sun exposure, lifestyle and the environment in which a person lives may also play a role.

We assess ingredients according to their properties and the available expert information. We draw mainly on publicly available databases and professional sources, including ECHA, European chemicals legislation, scientific studies and other expert institutions.

## GHS / CLP and H-statements

For negative ratings, we rely primarily on the principles of the GHS/CLP system, which classifies the hazards of chemical substances and mixtures. Among other elements, this system uses H-statements, which describe the risks a substance may pose to health or the environment.

## GS statements

Because the official classification may not always cover all the properties relevant to our assessment, we supplement it with our own internal system. This helps us describe other relevant properties, such as suspected endocrine activity, bioaccumulation, persistence in the environment or other problematic impacts. We refer to these internal descriptions as GS statements.

## G statements

In addition to negative properties, we also consider positive properties. For these, we use our own system of G statements. These may include moisturising, regenerating, soothing or antioxidant effects, support for healing, protection of the skin barrier and similar properties.

We do not assess an ingredient solely according to whether it is “natural” or “synthetic”. In some cases, we consider several criteria at once: origin, method of production, degree of processing, available safety data, impact on health, impact on the environment, biodegradability and the actual context in which it is used in cosmetics.

The specific sources on which our assessment is based can usually be found directly under the individual ingredients. A summary of the main sources is also available in the separate section **“List of sources and abbreviations”**.

## Why we do not use averages

We assess an ingredient according to its most serious relevant property. We do not use a simple average because this could be misleading.

For example, an ingredient may have a useful technological function while also raising serious concerns about a negative impact on health or the environment. In such a case, we do not want the risk to become “lost” in an average of positive and neutral properties.



### Purpose of the assessment

Our main aim is to draw attention to properties that may be important to users when making decisions.

## Indicative rating scale

**+2 (dark green)**

**Ingredients with a very positive rating. These are typically natural plant-based substances that are gently and simply processed, for example by cold pressing, drying or mechanical treatment. They have no known negative effects and may also benefit the skin through moisturising, antioxidant, nourishing or protective properties. Examples include jojoba oil and hemp oil.**

**+1 (light green)**

**Ingredients with a positive rating. These may include natural derivatives or substances obtained through more complex processing, such as distillation, extraction or modification of a natural raw material, provided they are not considered harmful. They may also have positive effects on the skin, hair and similar areas.**

**0 (beige)**

**A neutral or inconclusive rating is used for ingredients for which insufficient information is available, whose positive and negative properties balance each other out, or whose assessment depends significantly on the method of production, purity, concentration, combination with other substances or the specific use.**

## Indicative rating scale – continued

**-1 (orange)**

Ingredients with a mildly negative or precautionary rating. These may include substances associated with certain concerns, inconclusive data, a problematic origin or a greater degree of processing. Serious risks such as mutagenicity have not been confirmed, but they may still have some negative impact on health or the environment.

**-2 (red)**

Ingredients with a negative rating. These include substances with significantly problematic properties, such as suspected or demonstrated serious impacts on health or the environment, persistence, bioaccumulation, toxicity to aquatic organisms, endocrine activity, carcinogenicity, mutagenicity, infertility, harm to the developing foetus or other hazardous properties.

**? (grey)**

A question mark means that the ingredient has not yet been assessed in the app. This is most often due to a different spelling of the name, a typographical error, another language, special characters or the manufacturer listing the ingredient under a different name from the one stored in our database. In some cases, the ingredient has already been assessed under its official CosIng/INCI name, but the trade or marketing name used by the manufacturer has not yet been linked to it.



### More than a colour: read the explanation

The colour scale is indicative. When making a decision, it is always important to open the specific ingredient and read the reason for its rating.

## Criteria for assessing origin and processing

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When assessing an ingredient, we also try, although this is not always possible, to distinguish its origin and how it was obtained.

We generally consider natural ingredients to include plant oils, herbal infusions, herbs, essential oils, natural plant extracts, plant-based colourants, clays, mineral pigments and iron oxides. However, natural origin does not automatically mean that an ingredient is always safe, suitable or environmentally friendly.

A natural plant-based ingredient that is simply processed and has no known problematic properties may receive a positive rating.

A natural derivative, meaning a substance produced through more complex processing of a natural raw material, may be assessed individually according to the production method, its properties and the available data.



### Ingredients of animal origin

For ingredients of animal origin, we also consider the ethical aspects of how they are obtained. Substances obtained by killing an animal are rated more negatively than substances produced without directly killing an animal. Secondary raw materials and processed by-products are assessed individually. This assessment does not, however, imply approval of killing animals.

## Criteria for assessing origin and processing – continued

For synthetic ingredients, we also consider their origin, including whether they are made from fossil raw materials, particularly petroleum, natural gas or coal. Examples include certain mineral oils, paraffins, petroleum jelly, synthetic solvents, polymers and substances derived from coal tar. We also consider whether they are biodegradable, whether they may accumulate in the environment, whether they may harm aquatic organisms and whether there are data on negative effects on health.

If an ingredient is identified as potentially problematic by one source but this information is not confirmed by other sources, we assess it as a precaution and always within the overall context. We distinguish whether a substance is synthetic, petrochemical, of natural origin or biodegradable, and whether it has other known hazardous properties.

### Asterisks next to ingredients

Asterisks next to ingredients are generally not part of the ingredient name. They refer to the manufacturer's explanatory note shown below the ingredient list.

They may indicate, for example, organic quality, origin from organic farming, considerate sourcing, or that the substance is a naturally occurring component of an essential oil or fragrance.

#### For example:

##### **\* Limonene**

According to the manufacturer's explanatory note, \*Limonene may mean that limonene is a naturally occurring component of an essential oil.

##### **\*\* Prunus Amygdalus Dulcis Oil**

\*\*Prunus Amygdalus Dulcis Oil may mean that the almond oil comes from organic farming or is of organic quality, and so on.

## Limitations of the assessment

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We aim to work as transparently as possible, but ingredient assessment has its limitations.

It is not always possible to determine the exact origin of a raw material, for example whether it comes from plants, petroleum or another source. The manufacturer may not state whether an ingredient is organic, exactly where it comes from, how it was processed or which trace impurities it may contain. Some substances may contain impurities **generated during production** that are not normally listed in the product's ingredients.

The **amount** of a particular substance in a product is also very important. However, manufacturers usually do not disclose it, even though concentration may significantly affect the final assessment. Until legislation requires at least the quantities of selected substances to be stated, it is not possible to assess every ingredient with complete accuracy and fairness. Some manufacturers provide more detailed information about the origin, type or amount of the ingredients used, but this remains the exception and may also be a form of marketing in which only part of the truth is disclosed.

For many products, including perfumes, laundry and cleaning products, nappies, hygiene products and often cosmetics, not all individual substances have to be listed. Even less information is available about their quantities in the product and the potential long-term impact of using several products containing the same problematic substance every day.

We therefore work with the information available to us. In some cases, our precautionary assessment may be stricter; in others, it may appear too lenient because important data needed for a more precise assessment are missing.

**Scientific knowledge is also continually developing.** If new data emerge, the assessment of an ingredient may change over time. If you find information that is outdated, inaccurate or incomplete, please let us know at [info@greenscan.cz](mailto:info@greenscan.cz). We will be happy to verify, correct or supplement it.



## Medicines and medicinal products

The GreenScan app is not a substitute for a doctor, pharmacist, package leaflet or official medicines databases.



### Important

If you have been prescribed a medicine, do not stop taking it or change the dosage solely on the basis of information in the app. Always consult a doctor or pharmacist.

For medicinal products, it is important to follow the package leaflet and the advice of a doctor or pharmacist above all. Further information can be verified through the official sources and databases of the relevant national medicines authority. In Czechia, this is the State Institute for Drug Control (SÚKL); in Slovakia, the State Institute for Drug Control (ŠÚKL); and in Slovenia, the Agency for Medicinal Products and Medical Devices of the Republic of Slovenia (JAZMP).

If you suspect an adverse reaction to a medicinal product, contact a doctor or pharmacist. You can also report the suspected reaction to the relevant national medicines authority in your country.

**Our aim is to help users better understand ingredients, not to replace professional healthcare.**

## Information notice

### Nature of the information

The information in the GreenScan app is educational and informative. It does not constitute medical advice, a legal opinion or a binding expert assessment.

**The app does not replace an individual assessment of a person's health, allergies, diagnoses or treatment, or the advice of a professional.**

The ingredient assessment is based on publicly available data, expert sources and GreenScan's internal methodology. Nevertheless, it may not always reflect every circumstance relating to a particular product, such as the exact concentration of an ingredient, the origin of the raw material, the manufacturing process, the presence of trace impurities or an individual person's sensitivity.

**The app does not encourage anyone to stop treatment,** disregard a doctor's advice or automatically discard every product containing a negatively rated ingredient. It only helps to highlight possible connections and present information more clearly to the user.

**The GreenScan app is a non-profit, independent project.** Our aim is not to harm particular brands or favour particular manufacturers. We want to promote transparency, informed choices and more responsible decision-making when selecting products.



### Feedback

If you find inaccurate, incomplete or outdated information in the app, please contact us at [info@greenscan.cz](mailto:info@greenscan.cz). We will verify it and, where appropriate, correct or supplement it.

## Project partners and funding

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This material was created by GreenScan in cooperation with the partners of the GreenGate<sub>2</sub> project.

### Project partners



### Funding and responsibility

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