Dirty secrets of the cosmetic industry - exposed!

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Director of Research and Development
ONEgroup, creator of miessence
QUICK QUIZ
What is a truly 'natural' cosmetic ingredient?

(A) A naturally-derived ingredient (eg. Cocoamide DEA from coconut oil).

(B) An ingredient manufactured with green chemistry principles.

(C) An ingredient that comes from nature.

(D) An ingredient harvested and processed without a chemical reaction.
What does 'organic' mean?

(A) Made with at least 70% of organic ingredients.

(B) Made with ingredients from farms that don’t use pesticides or synthetic fertilisers.

(C) A carbon-based compound.

(D) A sustainable farming practice that prohibits genetic engineering, pesticides, synthetic fertilisers and antibiotics.
What does 'certified organic' mean?

(A)  95% organic ingredients (including water).

(B)  85% organic ingredients.

(C)  70% certified organic ingredients, excluding water.

(D)  95% certified organic ingredients (excluding water).
Why be an informed consumer?

- To not be fooled by green-washing and slick marketing
- To protect your family from toxic chemicals disguised as ‘natural’ ingredients
- To create a better world through consumer power

“Never doubt that a small group of committed people can change the world. In fact, it is the only thing that ever has!”
Margaret Mead
What is 'natural'? 

**Truly Natural**

- NO chemical reaction
- Safe
- Edible
- Food grade

**Naturally Derived / Synthesised**

- Involves a chemical process
e.g. Cocoamid DEA (coconut)
- Some processing aids and impurities in cosmetic chemicals are linked to asthma, learning disabilities, infertility, birth defects and cancer.
What is 'organic'?  

An ecological and sustainable farm management system

**YES:**
- promotes biodiversity
- enhances soil fertility
- prevents topsoil erosion
- protects groundwater
- conserves energy
- protects our next generation

**NO:**
- genetic engineering
- pesticides
- synthetic fertilisers
- antibiotics
- growth hormones

But what about organic products? How can we tell a truly organic product?
How to verify an 'organic' claim

Certified Organic is:
- minimum 95% organic (excluding water)
- independent third party guarantee
- authenticity and integrity of every ingredient
- independently regulated by certification bodies

only certified organic products can bear a certifiers logo

Without a logo an 'organic' claim cannot be substantiated
Lurking dangers in the cosmetic industry

“Consumers believe that ‘if it's on the market, it can't hurt me.’ And this belief is sometimes wrong.”
– Director of FDA's Office of Cosmetics and Colors (FDA 1998)

Known and probable human carcinogens in cosmetics
One-third of all products on the market contain one or more ingredients classified as possible human carcinogens.

Impurities of concern in personal care products
Nearly 70% of all products on the market contain ingredients that can be contaminated with impurities linked to cancer and other health problems.

Unassessed ingredients
89% of the 10,500 ingredients used in personal care products have not been evaluated for safety by the CIR, the FDA, or any other publicly accountable institution.
Manufacturers often list the source of the chemical to lull consumers into a false sense of security about the 'naturalness', 'purity' and 'safety' of their ingredients.

<table>
<thead>
<tr>
<th>What manufacturer says: INCI name and (source)</th>
<th>Chemical names / method of synthesis</th>
</tr>
</thead>
</table>
| cocomidopropyl betaine (coconut oil)         | **Chemical name:** 1-propanamium, N-caroxymethyl-N, N-dimethyl-3-amino-, N-(mixed coco acyl and 9-octadecenoyl) derivs., hydroxides, inner salts.  
**Method of synthesis:** reaction of fatty acids with amines and monochloracetic acid. i.e. ammonia, oils and a toxic herbicide. |
| olefin sulfonate (coconut oil)                | **Method of synthesis:** sulfonation of olefines. i.e. reacting petrochemicals with boiling sulfuric acid. |
| disodium cocoamphodiacetate (coconut oil)     | **Chemical name:** Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts. |
Greenwashing – don't believe the hype!

Companies mislead consumers by listing botanical extracts, or 'aqueous infusions' (which are just weak teas) at the top of the ingredient list.

Hiding the synthetic surfactant ingredients that make up the core of the product further down the list.

The substantial water component of the herbal mixture as organic is incorrectly counted as 'organic', which is prohibited under International Organic Standards. This practice artificially inflates the organic content in order to make a deceptive 70% organic claim.
What manufacturers state about their ingredients

**Water**

**Dimethicone (silica)**

**Carbomer 941**

**PEG-50 Almond Glycerides (almond)**

**Sodium Laureth Sulfate (coconut)**

**Cocoamidopropyl Hydroxysultaine**

**Triethanolamine (TEA)**

**Methylchloroisothiazolinone**

**Phenoxyethanol**

**Methyl Paraben (organic preservative)**

**FD&C Yellow No. 6**

**Fragrance**

**Composed of 4 known carcinogens**
- Formaldehyde
- Dioxane
- Ethylene Oxide
- Acetaldehyde

**Causes eye stinging and redness**
- Causes redness and burning of skin
- Toxicological properties have NOT been investigated at all.

**Causes severe damage to the eyes**
- Causes reproductive disorders
- Causes brain degeneration

**Serious damage to the eyes**
- Causes brain degeneration

**Toxic to kidney and bladder**
- Causes reproductive disorders
- Causes brain degeneration

**Harmful by skin absorption**
- Eye irritant, Skin irritant
- Causes tumors in lungs and thorax
- Causes tumors in endocrine system
- Toxicological properties have NOT been thoroughly investigated.

**Toxicological properties have NOT been investigated at all.**

**Severely irritating to body tissues**
- Corrosive to the eyes
- React with nitrosating agents to form nitrosamines, which are Carcinogenic

**Harmful by skin absorption**
- Corrosion and burns to the eyes and skin
- Permanent irreversible eye damage
- Nitrosating agent

**MSDS (Material Safety Data Sheet) information**
The practice of listing cosmetic ingredients by their trade name is an intentionally deceptive practice to mislead the consumer.

<table>
<thead>
<tr>
<th>Illegally listed as</th>
<th>INCI name</th>
<th>Danger</th>
</tr>
</thead>
<tbody>
<tr>
<td>'suttocide', 'suttocide glycerin'</td>
<td>sodium hydroxymethylglycinate</td>
<td>Decomposes in water to release formaldehyde.</td>
</tr>
<tr>
<td>'amino acid preservative'</td>
<td></td>
<td>Formaldehyde causes cancer.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'kathon CG'</td>
<td>methylchloroisothiazolinone</td>
<td>Allergic contact dermatitis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eye damage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Harmful if swallowed / corrosive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nitrosating agent</td>
</tr>
</tbody>
</table>
Spotting formaldehyde donating preservatives

Formaldehyde Dangers:

Carcinogen, Skin reactions, Ear infections, Headaches, Depression, Asthma, Joint pain, Dizziness, Mental confusion, Nausea, Fatigue, Disorientation, Phlebitis, Vomiting, Sleep disturbances, Laryngitis.

Preservatives that release formaldehyde:

- Sodium hydroxymethylglycinate (Suttocide)
- Imidazolidinyl urea (Germall 115)
- Diazolidinyl urea (Germall II)
- Quaternium-15
- 2-bromo-2-nitropropane-1,3-diol (Bronopol)
- DMDM Hydantoin (Glydant)
1,4-Dioxane is considered a chemical “known to the State of California to cause cancer” under proposition 65, and is also suspected as a kidney toxicant, neurotoxicant and respiratory toxicant, among others, according to the California EPA.

Organic Consumer Association Study 2007-2008

Since they are impurities, they do not appear on ingredient labels....

**AVOID these ingredients:**

‘PEG’, ‘polyethylene’, ‘polyethylene glycol’, ‘polyoxyethylene’, ‘-eth-’ (such as sodium laureth sulfate), ‘oxynol’, ‘ceteareth’ or ‘oleth’.
Nitrosamines have been identified as one of the most potent classes of carcinogens, having caused cancer in more than 40 different animal species as well as in humans. NDELA is the specific nitrosamine "to which human exposure is the greatest," since it occurs "in cosmetics" and is "absorbed readily through the skin."

Carcinogenesis 1985, National Cancer Institute

The cosmetic industry must “take immediate measures to eliminate, to the extent possible, NDELA and any other N-nitrosamines from cosmetic products.”

— FDA Commissioner Donald Kennedy, 1979

Use of DEA in cosmetics has been banned since 2001 in Europe.

AVOID these ingredients:

MEA (Monoethanolamine), DEA (Diethanolamine), TEA (Triethanolamine)
e.g. Cocamide MEA, Cocamide DEA, DEA-Cetyl Phosphate, DEA Oleth-3 Phosphate, Lauramide DEA, Linoleamide MEA, Myristamide DEA, Oleamide DEA, Stearamide MEA, TEA Lauryl Sulfate.
Why developed certified organic products?

- To be a beacon of integrity amongst the plethora of fake natural and organic products.
- To support farmers and companies in the ethical and sustainable use of the earth's resources.
- To offer products that are truly safe and effective.
Thank you!