ONEgroup
Organic & Natural Enterprise Group Pty Ltd

Dirty secrets of the cosmetic industry - exposed!

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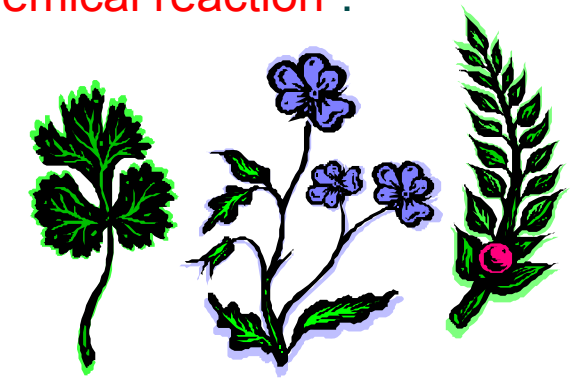
What we're covering today

- Defining 'natural', 'organic' and 'certified organic'
- Tips on how to see through greenwashing and deceptive labelling practices
- Safety issues of some cosmetic chemicals

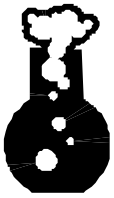
Defining 'natural'

Dictionary:
"existing in, or formed by nature"
ASCC May 2007: “a material harvested and processed without chemical reaction”.



Cosmetic Industry: a cosmetic ingredient that is derived from a natural source. e.g. Cocamide DEA (coconut)

ASCC May 2007:
“Naturally derived” = “Synthetic”
Involving a chemical process regardless of source.



Safety concerns with naturally derived / synthetic:

Many of the processing aids and impurities of cosmetic chemicals are linked to asthma, learning disabilities, infertility, birth defects and cancer.

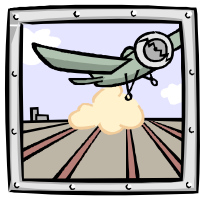
Defining 'organic'

Organic agriculture *is an ecological farm management system that:*

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

Organic agriculture *prohibits:*

- genetic engineering
- pesticides
- synthetic fertilisers,
- antibiotics
- growth hormones



What about organic products?

Many companies now claim to have "*organic*" products.

What does this mean?

Is there an authority that governs the use of the term 'organic' on labels?

How can we tell if a product is truly organic?

How to verify an 'organic' claim

Certified Organic

Is an independent third party guarantee of an 'organic' claim

Is a guarantee of authenticity and integrity of every ingredient

Is regulated by government and independent certification bodies

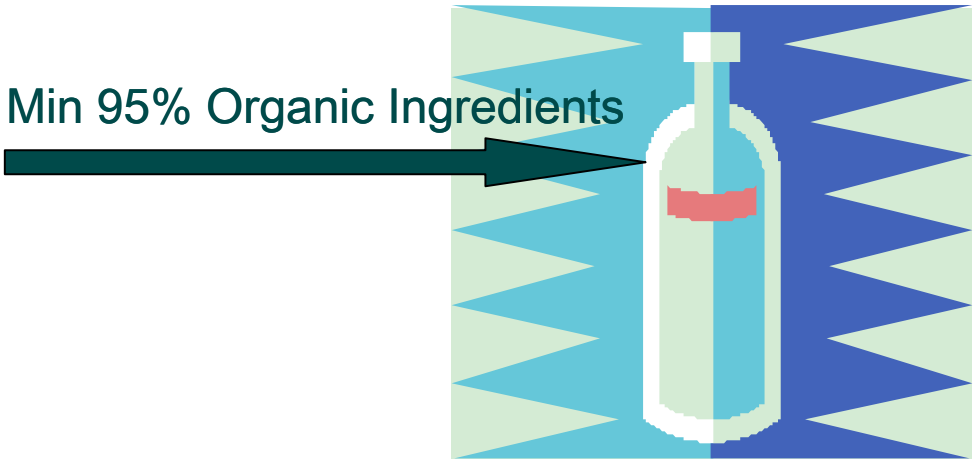
Only certified organic products can bear a certifiers logo

YOUR GUARANTEE OF INTEGRITY
AUSTRALIAN CERTIFIED ORGANIC

USDA ORGANIC

Without a logo an 'organic' claim cannot be substantiated

How to make a ‘certified organic’ product



Certified Organic products are:

- Minimally processed
- Naturally extracted

without:

- Artificial ingredients
- Synthetic processes
- Synthetic preservatives
- Animal testing
- Irradiation

Certified Organic Processors must:

- Keep detailed written purchasing, production and sales records (audit trail)
- Develop stringent quality systems to maintain organic integrity of ingredients
- Ensure traceability of organic ingredients (from seed to consumer)
- Maintain strict physical separation of ingredients to prevent contamination
- Undergo periodic on-site inspections (audits)

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.

Bio-chemists 'rule-of-thumb'

How to breakdown a typical ingredients list

90-95%	Water Dimethicone (silica) Carbomer 941 PEG-50 Almond Glycerides (almond)
5-8%	Sodium Laureth Sulfate (coconut) Cocoamidopropyl Hydroxysultaine Triethanolamine (TEA) Methylchloroisothiazolinone
1-3%	Phenoxyethanol Methyl Paraben (organic preservative) FD&C Yellow No. 6 Fragrance

MSDS (Material Safety Data Sheet) information

What manufacturers state about their ingredients

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.

Toxic to kidney and bladder
Causes **reproductive disorders**
Serious damage to the eyes
Causes **brain degeneration**

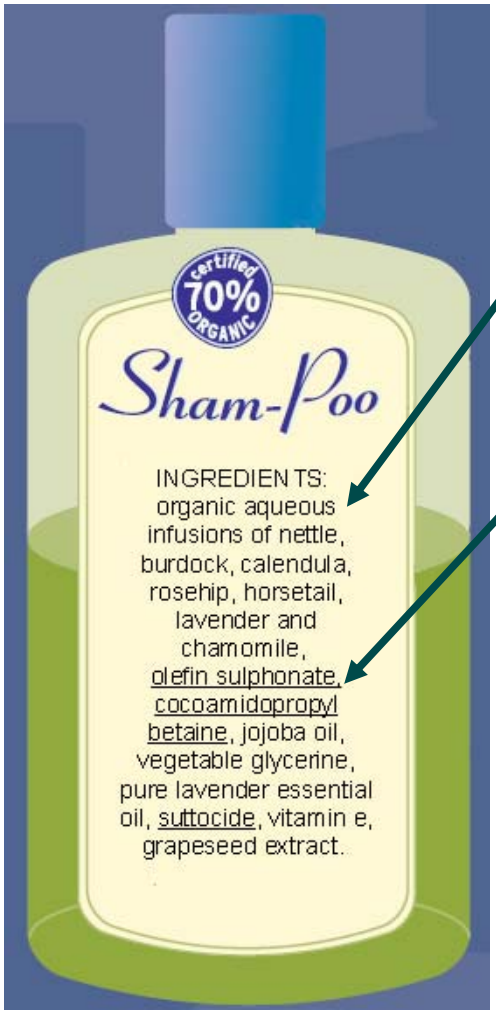
Water
Dimethicone (silica)
Carbomer 941
PEG-50 Almond Glycerides (almond)
Sodium Laureth Sulfate (coconut)
Cocoamidopropyl Hydroxysultaine
Triethanolamine (TEA)
Methylchloroisothiazolinone
Phenoxyethanol
Methyl Paraben (organic preservative)
FD&C Yellow No. 6
Fragrance

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.

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

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.

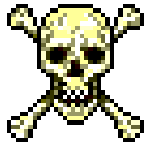
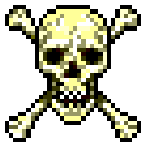
Common 'greenwashed' ingredients

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.

What manufacturer says: INCI name and (source)	Chemical names / method of synthesis
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.

Revealing misleading ingredient names

The practice of listing cosmetic ingredients by their trade name is an intentionally deceptive practice to mislead the consumer.

Illegally listed as	INCI name	Danger
'suttocide', 'suttocide a' 'suttocide glycerin'	sodium hydroxymethylglycinate	Decomposes in water to release formaldehyde.  Formaldehyde causes cancer.
'kathon CG'	methylchloroisothiazolinone	 Allergic contact dermatitis Eye damage Harmful if swallowed / corrosive Nitrosating agent

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 contain one or more ingredients classified as *possible* human carcinogens.

Impurities of concern in personal care products
Nearly 70% of all products 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.

Known human carcinogens in cosmetics

Ingredient	Dangers	Where found?
Coal tar	Carcinogen, Mutagen (genetic mutation), Skin irritation, Dermatitis, Acne, Eye damage.	Products for psoriasis and eczema: Exorex, Alphosyl Cream, Psoriasin Gel, X-Seb T Plus Shampoo, Ionil T Plus Shampoo, Neutrogena T/Gel Extra Strength Shampoo, Polytar Shampoo and Polytar Soap, Cutar Bath Oil Liquid Emulsion, MG 217 Lotion, Ointment and Soap.
Formaldehyde	Carcinogen, Skin reactions, Ear infections, Headaches, Depression, Asthma, Joint pain, Dizziness, Mental confusion, Nausea Disorientation, Phlebitis, Fatigue, Vomiting, Sleep disturbances, Laryngitis.	Nail treatments as ingredient:: MAVALA Scientifique Nail Hardener Released by formaldehyde-donating preservatives: • Sodium hydroxymethylglycinate (Suttocide) • Imidazolidinyl urea (Germall 115) • Diazolidinyl urea (Germall II) • Quaternium-15 • 2-bromo-2-nitropropane-1,3-diol (Bronopol) • DMDM Hydantoin (Glydant)
Lead acetate	Carcinogen, Teratogen (birth defects), Mutagen (genetic mutation), Neurotoxin (brain damage).	Men's hair colour restorer: Grecian Formula, GreyRemover, Youthair.
Selenium sulfide	Carcinogen, Dermatitis, Scalp dryness, Hair loss, Eye irritation, Organ damage.	Anti-dandruff shampoos: Head & Shoulders, Selsun Blue, Exsel Lotion Shampoo, Glo-Sel, Versel Lotion.
Dibutyl phthalate	Birth defects / deformities, Endocrine disruptor, Liver damage, Impaired immunity Kidney damage, Neurotoxin (brain damage), Reproductive toxin (infertility).	Nail Polishes: L'Oréal, Maybelline, CoverGirl, Chanel, Christian Dior, Max Factor, Sally Hansen, Hard as Nails, Urban Decay.

Toxic impurities in personal care products

- Nearly 70% of all products assessed contain ingredients that can be contaminated with impurities.
- Many impurities readily penetrate human skin.
- 55% of all products assessed contain “penetration enhancers”.
- 50 products contain both penetration enhancers and known or probable human carcinogens.

1,4-dioxane and ethylene oxide contamination

Probable human carcinogens (EPA)
Known animal carcinogens (NTP)
Readily penetrate the skin. (FDA)

1982	CIR	“aware of the problem and making efforts”
2000	FDA	“continuing concerns…evidence linking it to systemic cancer”
2003	FDA	“1,4-dioxane can be removed…without an unreasonable cost”
2003	CIR	“importance of purification procedures was stressed”

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’.

Nitrosamine contamination

"FDA has urged cosmetic manufacturers to voluntarily remove from cosmetics any ingredient that may combine with others to form NDELA and to conduct additional testing to determine why cosmetics become contaminated with NDELA."
— USFDA Office of Cosmetics and Colors, 1996

Nitrosamines are formed when a two types of ingredients react together. The reaction occurs during manufacture and storage. The EWG analysis shows that 10% of products contain ingredients that can combine to form nitrosamines.

U.K. Department of Trade and Industry found that nitrosamine levels in some products had more than doubled four months after the product was opened, and increased by more than four-fold over 17 months (DTI 1998).

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.

PAH contamination

PAHs, or polycyclic aromatic hydrocarbons, are common contaminants in petrolatum, also called petroleum jelly or paraffin and sold under well-known brand name of Vaseline.

Petrolatum is listed as a probable human carcinogen in the European Union's Dangerous Substances Directive (UNECE 2004)

PAHs and Breast Cancer

Researchers at Columbia University found that the breast tissue of women with breast cancer was 2.6 times more likely to contain elevated levels of PAHs than the breast tissue of women without breast cancer (Rundle et al. 2000).

Petrolatum is found 7.1% of products on the market, including 15% of all lipstick and 40% of all baby lotions and oils.

Untested Ingredients

The Expert Panel noted the marked absence of safety data specifically on Isostearamide DEA and MEA, Myristamide DEA and MEA, and Stearamide DEA and MEA.

— CIR Panel commenting on the lack of data available for all six chemicals under review before finding them all "safe for use" in cosmetics (CIR 2003)

- Since its inception in 1976, the CIR has met an estimated 112 times and reviewed 1,175 cosmetic ingredients.
- Spent an average of one hour and ten minutes deliberating the use, toxicity, and safety of each ingredient reviewed.
- Has assessed only 11% of the 10,500 ingredients used in cosmetics.
- Found just 9 ingredients unsafe for use in cosmetics. 2 of these are still in products currently on the market!

How do you protect yourself?

- Don't fall for 'natural' claims
- Don't fall for 'organic' claims without a logo
- Read ingredients lists!

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