Organic Cosmetics for Natural Beauty!

How do we know what we are buying is really natural?

As the number of people who are concerned about toxins in our environment grows, more and more cosmetic companies are seen to be jumping on the natural and organic bandwagon. But what does natural and organic mean when we see it on a product label? How do we know what we are buying is really natural and organic? What are the natural alternatives to chemicals? And is natural really better for us?

Our skin is the largest eliminatory organ in the body. It is a two-way membrane. Toxins are eliminated through the skin via perspiration and absorbed through the skin, into the body's systemic circulation, through hair follicles and sebaceous glands (not through sweat glands). One square inch of skin contains 65 hairs, 100 sebaceous glands, and 650 sweat glands,

Cosmetic manufacturers are not supposed to claim that their products penetrate our skin. If they did (the products would then be labelled a 'drug' and henceforth be governed by much stricter regulations. This is both good and bad. Good because it means your skin can be nourished from the outside with some wonderful ingredients. Bad because it means some cosmetic manufacturer can put into their products that would never be allowed to be taken orally, but are still absorbed into our system, through our skin.

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WHAT DOES "NATURAL" AND "ORGANIC" MEAN ON PRODUCT LABELS?

Nowhere does the idea of "natural" or "organic" take a more gratuitous bruising than the cosmetics industry.

If we look at the term "natural" we probably define it as "existing in, or formed by nature; not artificial". Many labels have long lists of chemical names, some followed by the phrase "derived from . . ." (some natural substance). This is misleading to consumers.

When chemicals such as Cocamide DEA or Sodium Hydroxysultaine are followed by the term "derived from coconut oil" the consumer is led to believe that these synthetic chemicals must be natural. While this may be true in some cases; it is ultimately irrelevant because what you end up with after the chemical processing is usually anything but natural or pure.

For example, to create Cocamide DEA, a foaming agent in some shampoos, requires the addition of a synthetic chemical and known carcinogen, Diethanolamine – DEA, to the coconut oil. It is therefore no longer natural, or safe!

If we look at the term "organic," we usually think it means 'grown and cultivated without the use of chemicals'. That is the conclusion most cosmetics companies would like us to make when we see the term "organic" on a label.

Some of those companies are cynically using the chemistry definition of "organic" - meaning a compound that contains a carbon atom. Carbon is found in anything that has ever lived. By using this definition of organic, they are saying that a petrochemical preservative called Methyl Paraben is "organic" because it was formed from leaves that rotted over thousands of years to become crude oil, which was then used to make this preservative.

An increasing number of companies are now claiming to use "organic" herbs in their products. But what about the rest of the ingredients? Are they safe? Isn't there an authority that governs the use of the term "organic" on labels? The simple answer is NO.

However, the term "certified organic" IS governed by a number of internationally recognised bodies. In Australia, Australian Certified Organic (ACO) is the largest. Searching for products with the logo of a certifying body on the label is the only way you can guarantee the organic authenticity and integrity of every ingredient in the product. Without this, the organic claim means nothing, as it cannot be verified. Here are some examples of internationally recognised certifying bodies:

PROCESSOR PATS AUSTRALIAN CERTIFIED ORGANIC

USDA ORGANIC

HOW DO WE KNOW WHAT WE ARE BUYING IS *REALLY* "NATURAL" AND "ORGANIC"?

Fortunately, there is a very simple way to differentiate between hype and truth in cosmetics - and that is to read the ingredient list on the label. It is a legal requirement that all skin care products must be labelled with the ingredients in descending order of their quantity in the product. A good rule of thumb is to divide the ingredients list into thirds: the top third usually contains 90-95% of the product, the middle third usually contains 5-8% and the bottom third, 1-3%.

Here is the ingredient list of a "natural" and "organic" body moisturiser from a well known "natural" skin care company.

APRICOT CREAM

Natural or Organic ingredients include:

1. Water (Deionised),
2. Isopropyl Palmitate (Palm Oil Derivative),
3. Apricot Kernel Oil,
4. Bis-Diglyceryl Caprylate/Caprate/Isostearate/ Stearate/Hydroxystearate Adipate (Vegetable Triglyceride),
5. Glyceryl Stearate SE (Vegetable Derived),
6. Caprylic/Capric Triglyceride (Glycerin-derived emollient),
7. Ceteareth - 12 (Organic Emulsifier),
8. Tocopherol Oil (Vitamin E),
9. Chamomile Extract,
10. Sage Extract,
11. Linden Extract (Lime Blossom Extract),
12. Balm Mint Extract,
13. Shea Butter (From Karite),
14. Wheat Germ Oil,
15. Carrot Oil,
16. Cetyl Alcohol (Organic Co-emulsifier),
17. Sodium Hydroxide (pH Adjuster),
18. Sorbic Acid (Organic Compound),
19. Tocopherol Acetate (Vitamin E Derivative),
20. Methylparaben (Organic Compound),
21. Propylparaben (Organic Compound),
22. Imidazolidinyl Urea (Organic Compound),
23. Fragrance,
24. FD&C Yellow No. 5, D&C Red No. 33. Content: Apricot Oil (2.5%)

Take note of the last point that says "Content: Apricot Oil (2.5%)". Notice that Apricot Oil is number 3 on the list. Because skin care manufacturers are required to list the ingredients in descending order this means everything AFTER Apricot oil makes up LESS than 2.5% by volume. This means that about 90% of that product is water and Isopropyl Palmitate. Isopropyl Palmitate, is derived from Isopropyl Alcohol, synthetic alcohol, and Palmitic Acid, a fatty acid from palm oil. It is known to cause skin irritations and dermatitis in rabbits and has been shown to have comedogenic (acne promoting) properties.

Nos 4, 5 and 6 are all produced by chemical reactions between various fatty acids and glycerol (synthetic glycerine). They are largely synthetic and have been shown to cause allergies and dermatitis.

No. 7 is a synthetic emulsifier that may contain dangerous levels of ethylene oxide and dioxane, both known carcinogens.

Nos 8-15 are natural ingredients used in very small amounts that may have been grown using pesticides and herbicides.

No. 16 may be natural or synthetic and has been shown to cause contact eczema.

No. 17 is otherwise known as Caustic Soda and is extremely alkaline and corrosive.

No. 18. Sorbic acid was once isolated from the mountain ash berry, but is now chemically synthesised and is a toxic preservative.

No. 19 is synthetic Vitamin E.

Nos 20-22 are toxic and allergenic preservatives.

No. 23. Probably synthetic, may contain phthalates that have been linked to birth defects.

No. 24. Synthetic colours that could be potentially carcinogenic.

Now let's look at an ingredient list of a certified organic body moisturiser. This ingredient list says:

CERTIFIED ORGANIC BODY INTENSIVE

1. Organic Aloe Vera,
2. Organic Safflower oil,
3. Purified Water,
4. Organic Avocado oil,
5. Organic Shea butter,
6. Non-GMO Lecithin,
7. Organic Sugar-Cane Ethanol,
8. D-Panthenol (pro-vit b5),
9. Organic Olive juice extract,
10. Organic Grapefruit Seed extract,
11. Natural gum,
12. Organic vanilla extract,

No. 1. from organic aloe vera plants with potent healing properties to regenerate the skin.

No. 2 is cold-pressed from organic safflower seeds, with emollient and skin softening properties.

No. 3. Purified Water.

No. 4 is cold-pressed from organic avocado fruit, very nourishing for dry skin.

No. 5 is from organic shea nut beans, fantastic at preventing stretchmarks and contains a natural sunscreen.

No. 6 is from non-genetically modified soybean oil, a natural moisturising factor contained in healthy skin.

No. 7 is from organic sugar, helps emulsify the oils, butters and aloe together.

No. 8 is a precursor to vitamin B5, healing and moisturising.

No. 9 is from olive juice, a natural antioxidant that protects the skin from UV damage.

No. 10 is from grapefruit seeds, a natural antibacterial.

No. 11 is a natural gum to soften the skin and thicken the product.

No. 12 is from organic vanilla beans and smells divine.

WHAT ARE THE NATURAL ALTERNATIVES TO CHEMICALS?

All skin care products, both synthetic and natural, contain items from the following categories in some combination or other:

EMOLLIENTS

Emollients serve two functions; they prevent dryness and protect the skin, acting as a barrier and healing agent. Water is the best emollient, but because it evaporates quickly it is ineffective. It needs to be held on the skin by emollient oils in what is called an *emulsion*.

Synthetic emollients are occlusive i.e. they coat the skin and do not allow it to respire (much like plastic wrap), which can cause skin irritation.

Some synthetic emollients can accumulate in the liver and lymph nodes. They are also non-biodegradable, causing a negative environmental impact.

Natural emollients actually nourish the skin. They are metabolised by the skin's own enzymes and absorbed into it. They are readily biodegradable and are of edible quality.

Some Synthetic Emollients

PEG compounds (eg PEG- 45 Almond Glyceride) may contain the toxic by-product dioxane

Synthetic alcohols (anything that contains the phrase benzyl –, butyl-, cetearyl-, cetyl -, glyceryl-, isopropyl-, myristyl propyl-, propylene-, or stearyl-) eg Isopropyl Palmitate, Diglyceryl Caprylate) have been shown to cause allergies and dermatitis.

Hydrocarbons (eg mineral oil, petrolatum, paraffin) contain carcinogenic and mutagenic Polycyclic Aromatic Hydrocarbons (PAHs) and can cause chemically induced acne.

Silicone Oils (eg dimethicone, cyclomethicone, copolyol) can clog the skin like plastic wrap and cause tumours when painted on lab animals (according to the Material Safety Data Sheet supplied by the manufacturer).

Some Natural Emollients

Plant Oils (eg. Jojoba, Avocado, Rosehip)
Shea, Cocoa and Jojoba Butters

HUMECTANTS

The main purpose of any cream is to keep the skin moist. Many conventional creams form a suffocating film on the skin to prevent moisture loss.

Even a natural humectant, glycerin, actually attracts water from the air and surrounding tissue. It keeps the skin moist as long as there is sufficient moisture in the air. In a dry climate it actually draws moisture from the skin.

Collagen, elastin and keratin enjoy some popularity as humectants. Whilst they are compatible with the skin and deposit a protective film, they are usually sourced from animals and therefore cannot be termed "cruelty free". Some skin care companies would like you to believe that your skin can use special animal proteins to rejuvenate and replace aging cells. This is nonsense! The size of the molecules, even when broken down (hydrolysed), are far too large to penetrate the skin. Even if they could get in, they would be immediately rejected as foreign matter and attacked by the immune system.

Natural phospholipids, from lecithin, are fantastic humectants. An important benefit of phospholipids is that they are hygroscopic (attract water from the surrounding air) and hold water where an increased level of hydration is needed. Therefore, phospholipids increase the hydration levels of the skin without being occlusive (forming a film to prevent water loss, and preventing normal cellular function).

A recent study proved the value of topically applied phospholipids in skin care. It found that environmental factors (sun, wind, pollution) and the detergents and solvents, found in most skin cleansers, actually stripped the natural phospholipid content from the top layer of skin. This loss resulted in a rough feel and a pitted appearance under a microscope. Importantly, the phospholipids in the uppermost skin layers cannot be replaced by natural cell function, as the top layer of cells no longer metabolise; they serve only as a protective barrier.

Remarkably, the study showed that topically applied plant phospholipids restore the barrier function of the skin, protecting it from substances such as bacteria and harmful chemicals.

Some Synthetic Humectants

Propylene Glycol – causes irritation and contact dermatitis

Ethylene/Diethylene Glycol – causes irritation and contact dermatitis

PEG compounds (eg Polyethylene Glycol) – may contain the toxic by-product dioxane

Ethoxylated surfactants (eg "- laureth-") – may contain the toxic by-product – dioxane

Synthetic alcohols (eg Glyceryl Coconate, Hydroxystearate, Myristate, Oleate) have been shown to cause allergies and dermatitis.

Some Natural Humectants

Lecithin

Panthenol (pro-vitamin B5)

Glycerin

EMULSIFIERS

Emulsifiers hold two ingredients together that normally don't mix. This can either be a physical substance (like a wax) or a physical action (shake well before use!). Synthetic emulsifiers are usually petroleum/hydrocarbon derivatives and can be allergens. Natural emulsifiers are obtained from various nuts, berries and leaves.

Some Synthetic Emulsifiers

Alkoxykated Amides (eg TEA, DEA, MEA, MIPA compounds) can undergo nitrosation to form nitrosamines, which are known carcinogens

PEG compounds – may contain the toxic by-product dioxane

Sorbitan Stearate, Laurate, Palmitate, Oleate etc

Ozokerite, Ceresin, Silicone and Montan Waxes

Isopropyl Stearate, Laurate, Palmitate, Oleate etc

Some Natural Emulsifiers

Plant Waxes (eg. Candelilla, Carnauba, Jojoba, Rice Bran)

Xanthan Gum

Quince Seed

SURFACTANTS

Surface-active-agents are substances capable of dissolving oils and holding dirt in suspension so it can be rinsed away with water. They are used in skin cleansers and shampoos.

A serious problem with ethoxylated surfactants (those that utilise ethylene or propylene oxide in the chemical reaction) is that they can be contaminated with dioxane, a potent carcinogen. These surfactants are listed on labels as ingredients ending with –eth, (like laureth) or containing the phrase PEG (PolyEthylene Glycol), or PPG (PolyPropylene Glycol).

Another dangerous class of surfactants are amides. These are listed on labels containing the term TEA – TriEthanolAmine, DEA – DiEthanolAmine and MEA, MonoEthanolAmine. All compounds containing TEA, DEA and MEA can undergo nitrosation with other chemicals to form nitrosamines, which are carcinogenic. One study has found that over 40% of products containing triethanolamine (TEA) were contaminated with these potent carcinogens.

Natural saponins (foaming agents) are a much better choice for shampoos. They gently cleanse the hair and scalp without stripping the natural oils.

Some Synthetic Surfactants

Sodium or Ammonium Lauryl or Laureth Sulphate

Sodium Methyl Cocoyl Taurate

Sodium Lauroyl or Cocoyl Sarcosinate

Cocomidopropyl Betaine

TEA (Triethanolamine) compounds

DEA (Diethanolamine) compounds

MEA (Monethanolamine) compounds

PEG (Polyethylene Glycol) compounds

Quaternium -7, 15, 31, 60 etc

Lauryl or Cocoyl Sarcosine

Disodium Oleamide or Dioctyl Sulfosuccinate etc.

Some Natural Surfactants
Castile Soap
Yucca Extract
Soapwort
Quillaja Bark Extract

PRESERVATIVES

The decaying process is natural and happens with or without preservatives. Skin care products do not (and should not) last for ever. Just like food, all natural skin care products will eventually deteriorate and go rancid. The effectiveness, not safety, of synthetic chemical preservatives has only been "proven" by animal testing. Chemical preservatives are generally used because they are much cheaper than, and extend the shelf life of the product more than natural alternatives. Storing natural products in the fridge will help extend their life.

Some Synthetic Preservatives
Imidiazolidinyl Urea (Germall 115) and Diazolidinyl Urea (Germall II) Causes contact dermatitis. Germall 115 releases formaldehyde over 10°C.

DMDM Hydantoin Highly toxic, causes contact dermatitis, contains formaldehyde. Used in shampoos and deodorants.

Methyl, Propyl, Butyl and Ethyl Paraben Toxic, Causes allergic reactions and skin rashes. Used in almost everything!

2-Bromo-2-Nitro-Propane-1, 3-diol. (Bronopol) Toxic, causes allergic contact dermatitis. Used in face creams, shampoos, mascaras and bath oils.

Benzalkonium Chloride Highly toxic, primary skin irritant. Used in shampoos, conditioner and deodorants.

Quarternium-15 Toxic, causes skin rashes and allergic reactions

Chloromethylisothiazolinone and Isothiazolinone Causes contact dermatitis.

Methylisothiazolinone and Methylchloroisothiazolinone

Both cause allergies.

Butylated Hydroxytoluene (BHT) and Butylated hudroxyanisole (BHA) Both cause allergic contact dermatitis.

BHT is carcinogenic.

Some Natural Preservatives
Tea Tree Essential Oil
Thyme Essential Oil
Grapefruit Seed Extract
Bitter Orange Extract

IS "NATURAL" REALLY BETTER?

There are some people who believe that there really are "safe" synthetic chemicals.

If we look at chemical use historically, we see a pattern of fantastic chemical breakthroughs that are sold to us as the "new" answer to our problems, which are then subsequently banned (or withdrawn) after the damage has been done. Remember the "miracle" of DDT for getting rid of pests on crops?

I believe that the search for newer, better and safer chemicals is foolish. Mother Nature always has, and always will, provide us with everything we need.

We should avoid all synthetic chemicals. By seeking out truly natural and organic products we are making a positive difference to our own health as well as supporting ecologically sound business ideals.

The World is Going Organic

FROM GRASSROOTS MOVEMENT TO SIGNIFICANT INDUSTRY

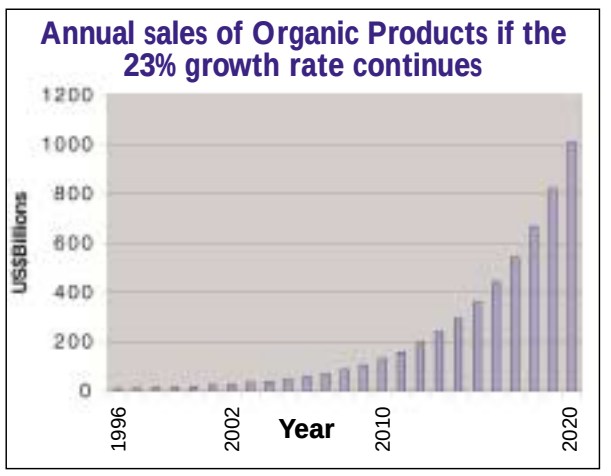
If current growth rates are maintained it is quite conceivable that the world's agriculture will be fundamentally organic by 2020. In order to understand how this is possible one must understand two distinct phenomena in society: fads and trends.

What is a Fad?

An idea that is taken up with great enthusiasm for a brief period of time; a craze.

Fads come and go. A fad is driven by hype and generates many sales in a short period of time. Generally speaking, it is a top-down movement, which generally starts with a sophisticated marketing campaign attuned to society's current mindset. For example, newfangled weight-loss equipment offering "immediate success" will initially be perceived as valuable, and a large number of people will buy it. However, after a short period of use, the equipment will be put away and forgotten.

Annual sales of Organic Products if the 23% growth rate continues



What is a Trend?

It is the general direction in which something tends to move.

Trends eventually become the norm. A trend is a grass roots, bottom-up movement that is driven by repeat business. A good example is the "natural" movement that started around 1970. Back then the term "natural" was not used very much on product packaging. Then a few companies started using it in response to public demand. The growth in sales of "natural" products prompted large corporations to create their own "natural" products. Now, three decades later, we ask ourselves, "What isn't natural?"

The organic movement began at the same time as industrialised agriculture. It evolved through the '50s and '60s with the launch of such books as *Silent Spring*, by Rachel Carson, which exposed the toxic bio-accumulative effects of pesticides. During the '70s the development of the organic market was stimulated by growing consumer interest in health and nutrition and the increasing awareness of the importance of preserving the natural environment. More recently the movement has been given significant impetus by events such as outbreaks of Bovine Spongiform Encephalopathy (BSE or Mad Cow Disease), and the controversy of Genetically Modified Organisms (GMOs), which have motivated people to search for healthy alternatives.

World trade in organic products is dominated by the United States, the European Union and Japan. Recent market research has shown that consumer demand is growing rapidly in these major markets. The sale of organic products is expected to reach between 5% and 10% of total food sales by the year 2005.

MARKET	2002 RETAIL SALES	CURRENT GROWTH RATE
USA	USD$9.4 Billion	19%
Europe	USD$9.2 Billion	22% (UK 2001 40% growth to USD$0.8 Billion)
Oceania*	USD$9.0 Billion	21% (Japan 2001 21% growth to USD$3.2 Billion)

* South East Asia, Japan, Taiwan, Australia and New Zealand

USA

Consumer sales of organic products in the United States reached USD$5.6 billion in 2000, a rise of 19% since 1999. With sales in 2001 reaching USD$9.4 billion, the organic segment should be worth between USD$13-USD$18 billion by 2005.

EUROPE

Research across seven European countries found that organic spending should nearly double every five years. During 2000, 29 million people in the UK said they had consumed organic food, a figure that represents almost half the population. Currently there are some 142 million consumers of organic food in Europe, showing that organic food has hit mainstream after many years as an "alternative" niche market. The UK, which had organic sales of GBP£605 million in 2000 and is expected to reach GBP£1 billion by the end of 2003, will continue to be a key market for organic products. By 2006, 58% of European consumers are expected to be buying organic products.

JAPAN

The Japanese are the largest per capita consumers of organic products in the world. Japan had a national market value of USD$1.5 billion in 1998, which grew to USD$3.2 billion in 2002. The majority of organic products in Japan are distributed through local co-operatives.

Over the next 20 years, projecting the same compounded growth that the "natural" phenomenon has enjoyed it is clear that the organic movement will play a significant role in world trade.