# *Rationale For* Nature Cleanse™

Of primary consideration in the development of Nature Cleanse™ and other Wysong topical products is the fact that the skin is an absorbing organ. This permits utilization of nutrients that can directly feed the skin. But this understanding should also serve as a precaution against using substances that could be detrimental or toxic when absorbed.

NATURE CLEANSE™

W Y S O N G

**PURPOSE:**

To cleanse skin and remove make-up using all natural, gentle ingredients. Naturally moisturizes and conditions the skin without oily residue. Mild, fragrance-free, hypoallergenic, and non-irritating for delicate skin.

**INGREDIENTS:**

Purified Water, Carbohydrate-Derived Surfactant, Coconut Oil Soap, Soapwort Extract, Xanthan and Acacia Blend, Aloe Vera, Hydrolyzed Wheat Protein, Soapbark Extract, Jojoba Oil, Yucca Extract, Essential Oil Blend (only in Orange Chamomile Nature Cleanse), Citric Acid, Wysong Citrox™ .

**– Not Tested On Animals –**

**DIRECTIONS:**

Apply a small amount of Nature Cleanse™ onto a wet facial sponge or fingertips. Gently massage into skin, working up to a lather until all make-up and dirt is dissolved. Rinse with cool water.

## ***Prevalence of Modern Synthetics***

Modern skin care products, like many of today's processed foods, are comprised of and dependent upon synthetic components. These chemicals are included in the design of the product to provide specific characteristics that are intended to contribute to its acceptability. Additives include sequestrants, solvents, emulsifiers, thickening agents, opacifiers, pH controls, preservatives, coloring agents, fragrances and many others. With few exceptions, these additives are synthetic, laboratory-derived chemicals. Although these materials are not to be internally ingested, the fact that a soap or other cosmetic is meant to be used directly on the skin throughout a lifetime should nonetheless be recognized as significant. The most recent method of "patch" medicating should warn us not to view the skin as a barrier by any means.

## ***The Nature of Skin***

The "skin" of simple one-celled organisms is extremely important not only for protection, but also for respiration, alimentation and secretion. Essentially all life processes, and all contact and interaction with the surrounding environment, are affected through this external coat. In multicellular organisms, there is an integument surrounding the cells, which further separates the organism from its environment. In complex organisms such as mammals, the skin is less functional since eating, respiration, and elimination are accomplished primarily through specialized organ systems.

But the skin is far from inert. The function of the skin as a barrier has been given far more attention than its function as an absorbing, excreting, and breathing organ. Nevertheless, to one degree or another, skin retains all the properties of the simplest unicellular organisms. Percutaneous and transepidermal absorption can result in the passage of substances in the form of gases or liquids from outside the body through the entire

thickness of the skin, directly into the vascular system. In some cases, this absorption can occur at a rate comparable to or exceeding the digestive tract's absorption capacity.

The usefulness of the skin as an absorbing medium for drugs and pharmaceuticals has long been recognized by medical science. Among contemporary agents there is good evidence that certain antibiotics, corticosteroids, sex hormones and vitamins can pass through the epidermal layer with relative ease. In fact, various systemic medications such as morphine, aspirin, insulin, melatonin, nitroglycerine and testosterone can effectively be administered via transdermal medical grade silicone topical patches. The feasibility of these medical practices demonstrates the permeable nature of the skin and how certain substances may ultimately affect systemic health when introduced directly to this living layer of tissue.

Although the permeability of skin allows for such topical treatments intended to improve health, the skin's absorbent nature can also prove to be a liability to health when irritating or potentially harmful materials are introduced. The scientific literature is filled with reports of frank poisons as well as undesirable pharmacological consequences of cutaneously absorbed materials. For example, a few milliliters of tetraethyl lead, a gasoline additive, placed on the skin may cause acute lead intoxication within several hours after application. Corticosteroids applied topically can suppress the adrenal gland, resulting in serious adrenocorticoid insufficiency syndromes. Certain pesticides absorbed through the skin of farm workers can induce cancer and other illnesses. Contact with the active resin within the microcapsules of carbonless copy paper can produce acute systemic histaminic reactions.

## THE COMPLEXITY OF THE SKIN

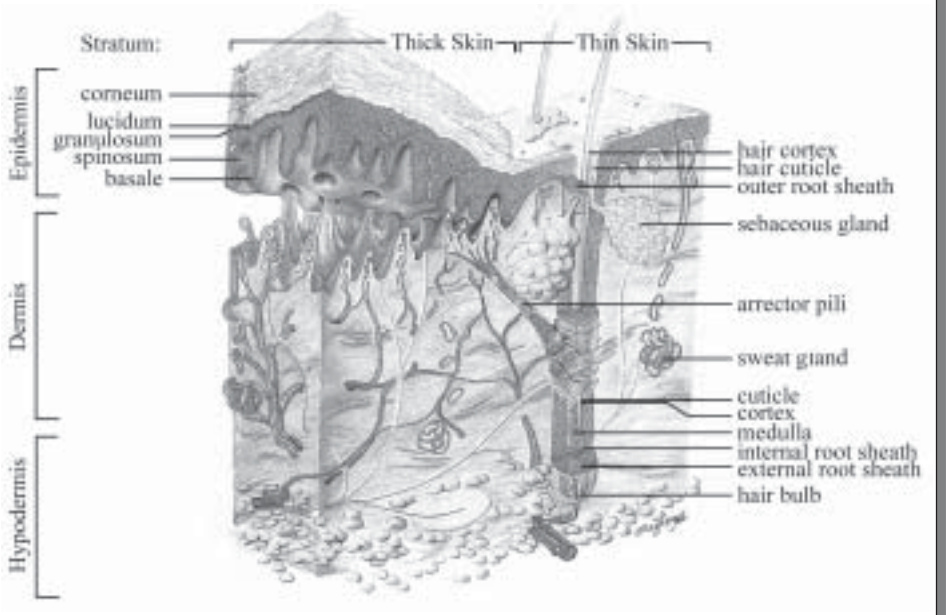


*Figure 1. The skin is composed of epidermis and dermis. The skin is avascular (without blood vessels), so nutrients cross into epidermis by diffusion or absorption.*

**From Color Atlas of Histology by S. L. Erlandsen, et al.**

The common measure of the safety of topicals, which involves testing to see whether or not the product is capable of initiating a localized reaction, is far too shortsighted. A thorough appraisal of a cosmetic product, or any topical product for that matter, should be viewed with the same scrutiny as are ingestible drugs. Long-term effects, along with possible consequences of being absorbed through the skin, must be carefully analyzed.

### ***Skin Food***

While some substances absorbed through the skin can pose known serious health risks, others may serve a positive function in regards to health. In fact, it has recently been found that nutritional functions can be carried out by way of the skin. Some essential fatty acids can be directly absorbed to relieve deficiency symptoms. Amino acid precursors to the skin's protective photosensitive pigment, melanin, can cross the barrier to enhance tanning function and protect against the harmful effects of solar radiation. Topical application of tretonoin (Retin-A™) can improve the health and appearance of photoaged skin, and the positive influence of vitamin E can take effect via topical applications. Thus the potential for "feeding" through the skin actually exists when topicals are applied. It is for this reason that the ingredients and processing used in Nature Cleanse™ are chosen with the same considerations as would be taken in creating a wholesome natural food. (We are not advocating that Nature Cleanse be eaten, however.)

***A Pause for Caution***

Many widely used skin cleanser ingredients are foreign to biological experience and thus are less likely to be well tolerated. Contrary to the popularly held notion that would suggest otherwise, a soap is not merely something to routinely apply, rinse away, and ignore. Regardless of animal testing, a practice which in itself is of questionable scientific value and humaneness, there is currently no way to precisely predict the long-term consequences of using synthetic-based personal care products like skin cleansers. In a National Academy of Sciences finding, the available data for 84% of all commercial cosmetic ingredients were deemed insufficient to allow for even a partial health assessment. Despite such disturbing data gaps, glossy eye-catching media advertising campaigns only serve to further distract attention away from what cosmetic product users are entitled to know: Does the product contain substances that can irritate the skin or eyes and perhaps affect overall long-term health once absorbed though the skin?

Unfortunately, the consumer usually purchases products based upon the hope for cosmetic effect, and does not give enough consideration to safety. In other words, an "*Aloe vera* make-up remover" may lead the consumer to believe that the beneficial attributes of *Aloe vera* will be realized if the product is used, but little consideration is given to the potential long-term health effects of the variety of synthetic perfumes, emulsifiers, surfactants, dyes, pH balancers and preservatives that are also present in the cleanser.

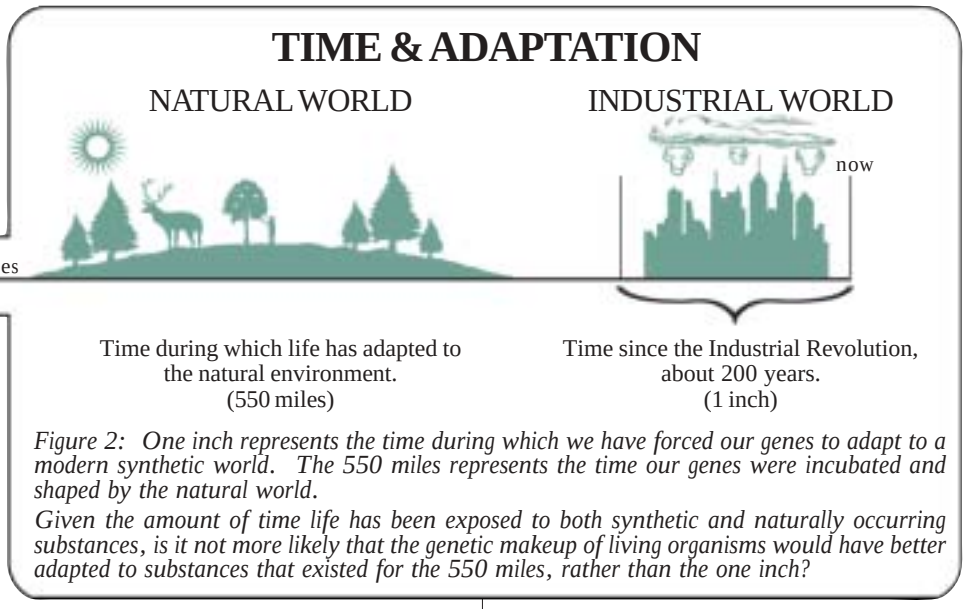


*Figure 2: One inch represents the time during which we have forced our genes to adapt to a modern synthetic world. The 550 miles represents the time our genes were incubated and shaped by the natural world.*

*Given the amount of time life has been exposed to both synthetic and naturally occurring substances, is it not more likely that the genetic makeup of living organisms would have better adapted to substances that existed for the 550 miles, rather than the one inch?*

Not only is the consumer usually unaware of the potential effects of these compounds, but even regulatory agencies do not have the appropriate safety data to prove that these compounds are not dangerous in the long-term. Although manufacturers are required to perform "safety" tests on products and can argue that their products are "safe" and comply with the law, important questions still remain. Such tests are short term and do not adequately allow for bio-individuality. Furthermore, no testing is conducted to determine the effect of the infinite variety of ratios and combinations that can be formulated, as is customary. Since absolutely thorough testing has not been convincingly achieved, we must be left with some solid ground upon which to make important buying decisions that may influence health. The most reasonable criterion used in this decision making process is that those substances normal to biological experience (that which is natural in the rightful sense of the word) are more likely to be safe than are synthetic materials.

***Wysong Nature Cleanse***

Regardless of how well any cleanser is able to perform, if the skin is to look and feel its best one must not lose sight of the fact that beauty on the surface is an accurate reflection of internal health and beauty. Total health and beauty are significantly influenced by a proper diet, exercise and lifestyle as described in the Wysong Optimal Health Program™ (see Optimal Health pages 1-2). Nature Cleanse is designed as an alternative to complement these important factors for a more natural approach to living.

Nature Cleanse is a pure, refreshing hand and facial wash that gently cleanses skin and removes make-up. It naturally moisturizes and conditions the skin without leaving an oily residue. The natural ingredients used in Nature Cleanse are mild, hypoallergenic and non-irritating for delicate skin.

Wysong Nature Cleanse does not sustain high suds volume or foam, which is characteristic of

most commercial soaps and cleansers. The rich, stable lather exhibits a creamy consistency that may feel uniquely different to some users. It is important to keep in mind, however, that although large amounts of suds can give the illusion of superior cleaning, such high suds volume requires the use of high levels of synthetics and has no actual relationship to cleaning ability.

Nature Cleanse is designed to provide an alternative to existing synthetic skin care products, which place more emphasis on cosmetic desirability than on matters of consumer and environmental well-being. This is accomplished by drawing upon a simplified list of natural source ingredients. Wysong Nature Cleanse is composed of ingredients that are as close to their natural state as possible.

The improved safety of natural substances in cosmetic applications such as skin care is due to their link to biological history. Although anything (even oxygen and water) can be toxic given a high enough dose, natural substances are a part of the natural world that is phylogenetically programmed with the genetic makeup of living beings. While not all that is "natural" is harmless, the safety odds are in favor of natural materials. The reason for this is that organisms, including our human bodies, have adapted to the natural environment over eons of time, which has allowed them to develop complex immune and detoxifying systems with the capability to recognize and neutralize most natural substances (see Figure 2). Synthetics, on the other hand, present a surprise of sorts to the metabolic mechanisms and thus may exert a toxic effect unimpeded. Natural compounds are usually detoxified, can exert therapeutic action, and are biodegradable, whereas xenobiotics (substances foreign to biological experience) are often highly toxic, perform a function at the expense of a grocery list of contraindications, and persist for years in the environment.

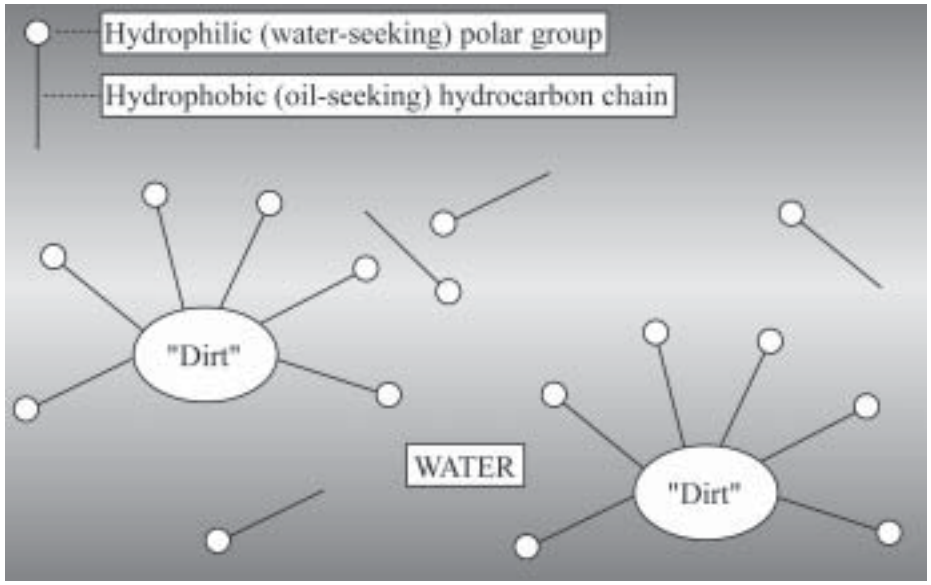


*Figure 3. Solubilization process of soap. Soap molecules act upon oily, soil-like material suspended in water. Hydrocarbon chains are attracted to oily inner portions of "dirt" particles with polar groups remaining in solution.*

## ***The Chemistry of Cleansing***

The primary function of a cleanser is to clean the skin. For this to take place, the cleanser must contain at least one particular type of substance classified as a "soap" or "detergent" whose specific chemical structure is responsible for these cleaning properties. Basically, such a substance consists of a chain of 10 to 18 carbon atoms combined with a hydrophilic (water-seeking) group positioned at or near the end of the carbon chain. By contrast, the carbon chain is hydrophobic in behavior, meaning it lacks an affinity for water. Thus, one part of the molecule is water-seeking, the other oil-seeking. This imbalance in polarity within the molecule creates unusual surface activity (hence "surfactant") and solubility characteristics that explain the molecule's ability to remove unwanted adhesive oils, grime, and epidermal debris from the skin. Due to their specialized molecular structure, these molecules will concentrate and orient themselves at the oil-solution interface. Here, the hydrophobic portion enters the oil (accumulated build-up on the surface of the skin) while the hydrophilic end remains in solution (water). Consequently, this arrangement reduces the interfacial tension so that dirt and oils are actually emulsified and dispersed in water and rinsed away (see Figure 3).

The advantage to using a natural cleansing agent is that dirt and oils can effectively be lifted away without the need for synthetics that merely enhance the sudsing stability and may be absorbed into the body. Regardless of how sat-

isfying a thick lather may seem, foam formation has no relation to how well a cleanser can clean. Formulations, in meeting this whim, are unnecessarily presenting a number of synthetics to the skin that could just as well be avoided.

***Natural Ingredients***

The following is a profile of the ingredients in Wysong Nature Cleanse and their specific performance attributes:

• Carbohydrate-Derived Surfactant – is a fatty polyglycoside derived from cornstarch that acts as the primary surfactant to provide detergency, emulsification and wetting action. It has excellent foaming characteristics, is mild to the skin and eyes, contains no solvents or hydrotypes and is environmentally friendly.

• Coconut Oil Soap – is processed from 100% pure natural coconut oil. Soaps made from coconut oil produce the most copious lather of all the animal and vegetable oil soaps. Because we used only whole coconut oil, rather than fatty acid extracts, the 12% natural glycerin found in the oil is retained. This adds emollient and moisturizing qualities, which are lacking in most commercial soaps.

• Soapwort and Soapbark Extracts – are derived form Panama bark and Fuller's herb, respectively. They contain saponins, compounds widely distributed in nature that are characterized by the soft, fragrant foams they produce with water. Saponins have long been recognized as natural cleansing agents to gently clean skin, clothes and fine fabrics, and have also been used to treat skin disorders and inflammations.

• Xanthan and Acacia – Xanthan gum is a high molecular weight polysaccharide that hydrates rapidly in cold water without lumping for viscosity, as well as being a natural thickening, stabilizing, emulsifying and foaming agent. Gum Acacia is a natural demulcent and contributes to viscosity.

• Aloe Vera – is probably the most popular and useful ingredient in the natural family of cosmetic ingredients, as it functions to promote skin firmness while it moistures. Aloe is hypoallergenic, pH-balanced, and soothing to the skin. Furthermore, aloe's astringent action controls excessive oiliness and encourages the skin's retention of inherent moisture, which is valuable in the prevention of eczema and other dermatological complications.

• Hydrolyzed Wheat Protein – is a naturally derived moisture balancing protein that offers more body and control for the hair. It is drawn to the cuticle as well as the damaged part of the hair shaft for repair. It contains 18 essential amino acids that also help strengthen the hair shaft while reducing brittleness and limpness, with dramatic effects on damaged hair.

• Jojoba – originated in the American southwest where Native Americans have long known of its potent cosmetic and medical properties. These properties make it ideal for use on the scalp to clear away build-up that can inhibit healthy hair growth. In addition, it helps to relieve dry, itchy, and flaky scalp. Jojoba oil can also nourish and condition hair follicles, thus preventing or repairing damaged hair.

• Yucca – is a natural foaming agent. It is biodegradable, and increases the formation of foam in cosmetic preparations and personal hygiene products. This non-irritating dense foaming agent is compatible with other natural ingredients and leaves skin and hair feeling smooth.

• Orange Chamomile – is an essential oil blend. Orange oil is used in many skin care products, and helps to revive wrinkled skin. Chamomile oil helps in treating acne, relieving headaches and migraines, as well as soothing inflammation of the skin.

• Wysong Citrox™ – contains natural citrus and vegetable extracts along with Wysong Oxherphol™. It is a safe, effective, and natural antimicrobial, fungicidal, antioxidant and preservative.

***How to Use Nature Cleanse***

Apply a small amount onto a wet facial sponge or fingertips. Gently massage into skin, working up to a lather to dissolve dirt and make-up. Rinse with cool water. Nature Cleanse can also be used as a mild all-over body-wash for those with exceptionally sensitive skin.

Nature Cleanse is available unscented or in Orange Chamomile. The unscented formula is recommended for those desiring the most mild of cleansers, or persons with toxicity or allergy issues. The Orange Chamomile uses only 100% pure essential oils, which lend a light and pleasing scent.

For extra moisturizing and protection, Wysong Dermal™ skin therapy may be applied to freshly cleaned skin. Dermal is all-natural, containing oils, proteins and moisturizers designed to be absorbed by the skin to soften, tone and protect against age-promoting oxidant free-radical damage.

For best results, use Nature Cleanse as a part of the Wysong Optimal Health Program, which includes healthy lifestyle choices, whole fresh foods, and healthy alternative products and supplements.

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*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.*

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