

# Why Natural Chemistry's Enzymes?

Natural Chemistry's enzymes are manufactured through the fermentation of a broad spectrum of annually renewable sources such as malt, botanicals and molasses. Each product is formulated to break down specific unwanted organic materials, molecule by molecule, until they are reduced to their elemental constituents - such as carbon dioxide and water.

Natural Chemistry's enzymes are:

- ~ Highly effective
- ~ 100% biodegradable
- ~ Bacteria free
- ~ 100% environmentally friendly
- ~ Non-toxic
- ~ Non-corrosive
- ~ Hypo-allergenic
- ~ Safe and easy to use

At Natural Chemistry  
we always use natural processes  
to yield natural results.

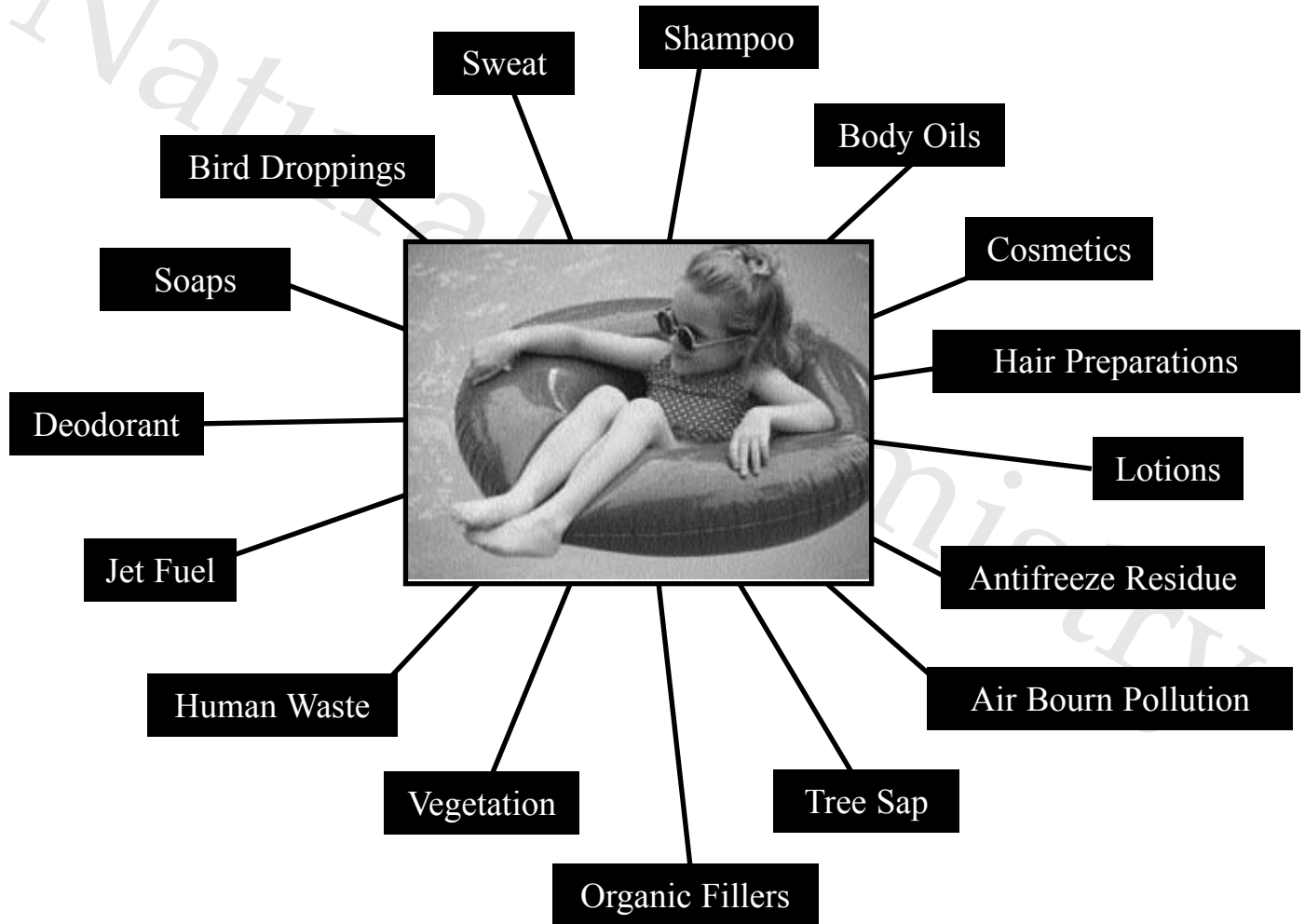
## "Natural" versus "Man-Made" Enzymes

Both natural and man-made enzymes come from the natural world. There are, however, major differences between them. Natural Chemistry's enzymes are formed by fermentation. They are made up of a complex set of ingredients that yield many types of enzymes and by-products - the result of which is equilibrium, or a balanced state. The process of fermentation produces a broad spectrum of balanced natural enzymes that combat a vast variety of organics. This is what makes natural enzymes so effective in pool and spa water, which contain such a wide assortment of organic contaminants. Comparatively, manufactured enzymes are isolated. They are made in sterile conditions with few by-products. Often unbalanced when blended, some manufactured

enzymes may attack and break each other down. This can lead to a decline in effectiveness and reliability. Blending creates a much narrower focus with higher concentrations of a few classes of enzymes rather than the broad spectrum lower concentration produced by fermentation. At face value it may seem this could be a benefit of manufacturing, but as with many things "more is not always better". With enzymes a little goes a long way; each enzyme molecule is capable of creating thousands of reactions. Thus a broad spectrum of coverage is much more advantageous than high concentrations, a few classes at most. In addition, high concentrations of any one specific enzyme can lead to eye and skin irritation.

# Where organic contaminants come from...

Illustrated below is just a small sampling of the various sources of organics. Natural Chemistry's **broad spectrum enzyme** formulas will remove all varieties of organics from your pool and spa water.



Manufactured then blended



Primarily  
Fats & Oils

Remember...if organics come from a broad range of sources, you want enzymes that cover that broad range of sources.

Otherwise you will be leaving some organic waste behind to cause future problems in the pool water.

Natural Chemistry has you covered!

# ENZYMES cont'd...

## Enzymes in Pools & Spas

Traditionally people have relied solely on chemicals to maintain their pools and spas. Sanitizers have been responsible for two functions: killing bacteria and/or viruses and other living organisms, and burning off organic material from the pool/spa water, unfortunately not very effectively. Clarifiers, flocs and various filter aids have taken their best shot, once again with limited results. "Organic material" including the non-living organics illustrated on the previous page can be eliminated best with one of nature's own bio chemical wonders; the enzyme. By combining with non-living organics, enzymes take on and eliminate the organic workload for the sanitizer. Sanitizers are still necessary to kill bacteria, viruses and other living organisms.

Natural enzymes work by biodegrading the organics in pools, actually breaking them down to their original building blocks, such as carbon dioxide and water, which are essentially reabsorbed back into the pool or spa water.

## Common Misconceptions about Enzymes:

- ~ Water clarifiers are the same as enzymes
- ~ All enzymes are the same and achieve the same results
- ~ Natural Chemistry's enzymes are just detergent
- ~ Natural Chemistry's enzymes contain copper
- ~ All Natural Chemistry's enzymes are the same product in different bottles
- ~ Enzymes don't have a benefit on a biguanide system

## Natural Chemistry = Quality Enzymes:

- ~ Natural Chemistry is the leader in natural enzyme technology
- ~ Natural Chemistry is the only company which believes enough in its products to guarantee them, unconditionally
- ~ Natural Chemistry is the only true all natural enzyme product line on the market
- ~ Our enzymes help prevent the organic component of water molds and slimes

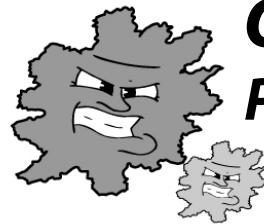
# Enzymes - Do's and Don'ts

## DO'S

- ~ DO use our enzyme products with any sanitizer system including: Chlorine, Bromine, Mineral systems, Ionizers, Biguanides and Chlorine generators
- ~ DO use our enzymes with any filter media: sand, earth and cartridge
- ~ DO swim or soak immediately after applying our enzymes: they are always gentle on the skin and the environment
- ~ DO reduce the use of clarifiers, tile & vinyl and filter cleaners as our enzymes will safely and effectively in most cases reduce these products without putting any unwanted bi-products in your pool and spa water
- ~ DO enjoy a level of water clarity and softness like never before
- ~ DO test before shocking or adding additional sanitizer as Natural Chemistry's controlled breakdown of organics will help eliminate the organic load
- ~ DO use our natural, non-toxic cleaners everywhere both inside and outside
- ~ DO clear up problem pools fast with Pool First Aid
- ~ DO use our enzymes to help in the prevention of water mold
- ~ DO use our enzymes in lakes and ponds to help reduce organic build-up. They are 100% non-toxic and biodegradable

## DON'TS

- ~ DON'T apply enzymes when adding sanitizers or shocks, enzymes hate chlorine over 6ppm. If you do, foaming will appear as the sanitizer is attacking the enzymes.
- ~ DON'T store enzymes in temperatures over 120 degrees, ie: your trunk, inside your spa cabinet, in direct sunlight, etc. This will cause the enzymes to react to the point of destruction.
- ~ DON'T use more than the recommended dose (unless you are problem solving) unlike the competition, with our broad spectrum of enzymes "a little goes a long way."



## **ORGANICS... Pool enemy #1**

***Organic contaminants (ie: body wastes, oils & sunscreens etc.) cause waterline rings & clogged filters***

***Organics cause poor water quality & chemical odors***

***Organics cause high demand on chlorine/sanitizers***

***Solve organic waste problems with Natural Chemistry's INDUSTRY LEADING NATURAL ENZYMES.***