THE PROBLEM & THE SOLUTION

Colloidal Micelles: *A Technical Summary*

Colloidal micelle technology, a new approach in the field of organic chemistry, was discovered during the early 1980's by environmentally conscious scientists. With minor modifications the basic technology can produce an impressive variety of poison-free, environmentally friendly products. Products created by this new technology can potentially replace millions of tons of toxic chemicals such as household, industrial and marine cleaners; agricultural applications including pesticide treatments; personal hygiene products such as acne preparations and lice shampoo; automobile; motorcycle and boat maintenance products; pet care products such as flea dip and flea shampoo; and insect repellents.

The colloidal micelles in all of the **SOLUTIONS-4-YOU.COM®** Products are composed of natural organic ingredients. The word "organic" as it is used here means both "carbon-based" and "naturally occurring in nature, not harmful to living systems." The word "colloidal" pertains to the ability of tiny particles to remain suspended in a solution. The word "micelle" means "cell that emulsifies." We believe that this is the first time micelle technology has been achieved with the use of natural ingredients that are completely safe for the environment, humans and pets.

In micelle technology, molecules create a field similar in some respects to a magnetic field. However, the molecular attraction induced by the microscopic micelles is not the attraction occurring in a magnetic field between opposite poles (positive and negative). Instead, the molecular micelle attraction occurs between like poles (positive and positive, and negative and negative). Each micelle molecule has a hydrophilic (water-seeking, negative) pole and a hydrophobic (water-repelling, positive) pole. The hydrophilic poles attract each other and form the interior of the micelle The hydrophobic poles attract each other and form a circular, tough outer surface. When a single micelle molecule comes in contact with a heavy hydrocarbon molecule-in other words, oil or grease, which is always hydrophobic – the hydrophobic center of the micelle molecule bonds to the hydrocarbon molecule, thus trapping it inside itself. In this way, the heavy hydrocarbons are pulled away from the original surface to which they were attracted (cloth, metal, skin, wood, etc.) and into the center of the micelle. The oil or grease remains permanently trapped inside the micelle molecule and is simply washed away with water.

The precise details of the manufacturing process for these products are trade secrets. The manufacturing process and the products themselves meet OSHA standard 29 CFR 1910 1200. OSHA stipulates no specific disposal requirements. The products may be poured down a sewer line or directly into the ground.