

C-11 CYCLONE™ CLEANER



Cyclone cleaner is the latest innovation to help speed up the cleaning process associated with: carpets, fabrics and upholstered material.

A complete new way to clean with the safety and speed needed to save time and completely eliminate the work involving stain removal & odor control in one simple step.

The toughest of stains succumbs to the power of this dynamic method of cleaning.

Every stain that plagues the cleaning process is destroyed by this futuristic, novel approach. Here is a list of stains that disappear:

- Dirt • blood • pet stains • grease • heavy traffic carpets areas •

Attaches to protein-based stains and devours them in minutes. Consumes the toughest food, grass, soil, blood and pet stains. Cyclone™ Cleaner can be used safely on carpet, fabric and upholstery. Also effective for eliminating odor causing bacteria. VOC Compliant.

Enzyme Magic Auto Carpet and Upholstery Cleaner is a specialized, non-aerosol formula that safely and effectively removes stains such as oil, grease, soil from shoes, food and pet stains, dust, pollution and more from the interior of your automobile. Enzyme Magic Auto Carpet and Upholstery Cleaner also deodorizes as it cleans, eliminating strong odors trapped inside your carpet and upholstery. Enzyme Magic Auto Carpet and Upholstery Cleaner penetrates the surface to lift and suspend soil, even old stains. Just spray on and wipe off. Specifically developed to tackle even the most stubborn stains, Enzyme Magic Auto Carpet and Upholstery Cleaner won't leave you frustrated. This amazing cleaner reaches deep into the fabric and lifts the offensive matter up and away from the fiber. Free of harsh chemicals and harmful aggregates To apply Enzyme Magic Auto Carpet and Upholstery Cleaner simply spray the cleaner directly onto the spot, wipe the cleaner in, and watch the stain disappear. Wipe dry with a clean cloth. Always be sure to vacuum the effected area well prior to cleaning. Enzyme Magic Auto Carpet and Upholstery Cleaner can be used to clean carpets, floor mats, carpeted panels, fabric and even velour seats! Don't stop at the car. This great cleaner works wonders in vans, motor homes, boats, and around the house! Designed to clean carpets and upholstery. Releases both oil and water-based soils from carpet and upholstery. Enzyme Magic Auto Carpet and Upholstery Cleaner is a blend of enzymes and detergents effective in the removal of soils and stains commonly found in carpets. It contains cleaning agents for faster removal of greasy soils. Leaves no tacky after film that can resoiling. It is non-flammable and leaves carpets odor free.

1. Enzyme cleaners are non-toxic solutions that utilize a combination of enzymes to remove dirt and stains. Since enzyme cleaners are non-toxic, they are safe to use around animals and children. Many people use enzyme cleaners for carpets and upholstery to remove stains and odors, specifically those that result from pets. In addition, enzyme cleaners are used in laundry detergents and contact lenses.

What is an Enzyme?

2. An enzyme is a protein that helps speed up chemical reactions. Enzymes attach themselves to a particular substrate and help break that substrate down. There are certain enzymes used for the different types of stains and soils. A protease enzyme breaks down protein-based stains, lipolase enzymes break down fat-based stains, and amylase enzymes break down starch-based stains.

Using Enzymes

3. There are enzyme cleaners available that are targeted to specific types of stains or odors. Many pet care companies sell enzyme cleaners aimed at removing urine stains and odors from carpets and furniture. These enzyme cleaners use an oxidation method to remove the stain and odor. When the enzyme cleaner soaks into the urine stain, it helps catalyze a chemical reaction to remove the residue. The enzyme itself is not affected by the chemical reaction, but rather attaches itself further to the substrate, helping to break down the molecules in the stain. This breakdown helps release the molecules causing the stain and odor and results in their removal from the carpet or other material.

UNDERSTANDING ENZYMES

Enzymes are proteins created by living cells that exist in organisms such as plants, animals and bacteria and are used to digest waste. When added to organic material like dirt, grease and oil, they immediately go to work breaking down the organic material within these substances. This natural "dust to dust" process that constantly occurs in our environment keeps waste material from overrunning us. The four basic enzymatic systems are those that break down fats and greases (lipase); proteins (protease); cellulose such as wood, cotton and paper (cellulase); and carbohydrates and starches (amylase). Dirt has layers of fine film composed of "substrate" such as grease, oils, fats, bacteria, germs, dust mites, non-organic material and organic microorganisms. These films are bonded to each other and to the surface by amino and fatty acids (organic acids composed of proteins, fats or fatty oils). Most cleaners emulsify some of these dirt films but may not break down the lower levels held together by amino and fatty acids. Usually the top layers of the films are removed but some of the lower levels are left to collect bacteria. As a result, re-soiling can occur much faster.

HOW THEY WORK

When activated, enzymes attack or digest the amino and fatty acids that bond the films of dirt together. They also emulsify them so they can be completely removed from the surface. Researchers believe that in the activation process, when the substrate and enzymes come in contact with each other, the enzymes physically curl and twist—in what is called a “conformational change.” This physical change initiates the contact between the enzyme and substrate which is necessary to “catalyze” the reaction. A catalyst is a substance that speeds or slows a chemical reaction without being involved in the reaction itself. Put another way, enzymes are chemical catalysts that accelerate the natural biodegrading, or breaking down, of organic substrate, which comprises most soils. Enzymes dissolve and break down protein and organic matter, diminishing odors caused by staining agents such as urine, feces, vomit, pet odors, spoiled foods and mildew. Enzymes are derived from living organisms and are harmless to humans, animals, marine life and general ecology. They are non-toxic, non-irritating, non-gaseous, non-flammable, non-pathogenic and typically safe to use. There are thousands of different enzymes, each having specific, individual characteristics. Since an enzyme that breaks down proteins (protease) will not react on fats or oils, and effective enzymatic cleaning system must contain enough different classes and types of enzymes to assure proper catalytic reaction. In concentrated form, this greatly speed up the natural “dust to dust” process. One way to demonstrate the effectiveness of enzyme digesters is to mix warm water and the enzyme product in a small cup (per recommended dilution ratio). Then place a few pieces of dry cat food into the cup. After 10 to 15 minutes, the cat food will be totally dissolved. This breakdown of protein will demonstrate, and help you more fully understand, how the chemical works on other microscopic bacteria and proteins.

What They Don't Do

4. While enzyme cleaners are able to chemically break down both stains and odors, they do not provide sterilization or any anti-bacterial properties during the cleaning action. Enzyme cleaners can work in conjunction with antibacterial cleaners, however, to provide a combination of spot removal and sterilization when it is necessary.

To understand how any cleaning product works, we must first understand what dirt is comprised of.

Dirt is actually layers of fine films made up of greases, oils, fats, bacteria, germs, dust mites, nonorganic material and organic micro-organisms. These films are bonded to each other and to the surface by amino and fatty acids.

Most cleaners emulsify some of these films but do not break down amino and fatty acids. Usually the top layers of the films are removed but some of the base layers are left to collect bacteria and, in turn, resoil much faster.

Enzymes attack or digest the amino and fatty acids that bond the films of dirt together and emulsifies them so they can be transferred completely off the surface, WHICH DETERGENT CANNOT DO.

In other words enzymes are catalysts that accelerate the natural biodegrading or breaking down of organic substrate which, as we said, comprises most soils.

Enzymes are derived from living organisms and are harmless to humans, animals and marine life, or most of our ecology. They perform their catalytic function on contact.

To put it another way, enzymes are manufactured proteins that already exist in organisms such as plants, animals and bacteria and are used to digest waste.

When added to organic material, such as dirt, grease and oil, they immediately go to work breaking down the organic material. It's this natural “Dust to Dust” process that constantly occurs in our environment and keeps waste material from over running us.

There are thousands of different enzymes, each having specific, individual characteristics. For example, a protease enzyme that causes proteins to break down

will not react on fats and/or oils. Therefore, an effective enzymatic cleaning system must contain enough different kinds, classes and types of enzymes to assure proper catalytic reaction, which in concentrated form greatly speeds up the natural “Dust to Dust” process.

There are FOUR BASIC ENZYMATIC SYSTEMS at work in Kleen Free Enzyme Cleaner:

1. THOSE THAT BREAK DOWN FATS AND GREASES (LIPASE).
2. THOSE THAT BREAK DOWN PROTEINS (PROTEASE).
3. THOSE THAT BREAK DOWN CELLULOSE, SUCH AS WOOD, COTTON, PAPER (CELLULASE).
4. THOSE THAT BREAK DOWN CARBOHYDRATES AND STARCHES (AMYLASE).

These four types must be incorporated into any good, complete and efficient Kleen Free Enzyme Cleaner.

There are two types of enzyme products: One is PRE-FORMED ENZYMES which already contain enzymes and emulsifiers. The other is ENZYME-PRODUCING BACTERIA which add strains of bacteria that will eventually produce enzymes when added to organic material.

Pre-formed Enzymes work best in health care and food handling areas where pure enzymes should be used, rather than bacteria-generated enzymes.

Enzymes actually OUT PERFORM GERMICIDAL CLEANERS because they digest the host material where germs and odor causing bacteria live and reproduce, thus eliminating the source and the bacteria. GERMICIDAL CLEANERS KILL BACTERIA BUT because they don't eliminate the host material, NEW BACTERIA CAN REPRODUCE VERY SOON after the germicidal cleaner has been applied.

Enzymes are effective in cleaning and deodorizing bathrooms, kitchens, floors, walls, furniture, carpet just about any type of surface.

General Cleaning: for counter tops, furniture, hard floors, spot cleaning for walls and tile, cleaning bathrooms: 2 ounces of Kleen Free Enzyme Cleaner to 1 gallon of water, 2 ounces to 15-ounce sprayer (heavy degreaser) for spotting.

Odor Control: Preformed enzymes are an extremely effective deodorizers. Note: There is no artificial scent. Strong urine odors might also require 1/2 cup borax per gallon of water. Use 2 ounces of Kleen Free Enzyme Cleaner to 1 gallon of water. Pour into trigger sprayer and mist into air. Use 2 - 4 ounces of Kleen Free Enzyme Cleaner in a humidifier in areas of high odor.

Carpet Cleaning: Helps control dust mite allergens. A. BONNET CLEANING: Use 2 ounces per gallon of water. B. SHAMPOO AND WATER EXTRACTION: Use 2 ounces per gallon for light to medium soil. Use 3 ounces per gallon for heavy soil. Pre-spray all traffic areas.

Drain and Septic Cleaner: Routinely add 2 ounces of Kleen Free Enzyme Cleaner concentrate per drain to keep them open and flowing. To help digest septic tanks, grease pits and drain fields and keep them open and working, add 5 - 25 gallons of Kleen Free Enzyme Cleaner to start the process and then add 1 gallon every 6 months.

Several stain- and odor-removing cleaning products are available today that are advertised as “enzyme-based”. They are considered some of the most effective products for the removal of stains and odors caused by organic material, such as urine, grass, blood, or the like. However, many consumers are skeptical of such claims. How can a single solution remove so many different kinds of stains? The answer lies in the nature of enzymes. Most people are

only vaguely familiar with the concept of an enzyme. Here is a short explanation of what an enzyme is, and how they work to remove stains and odors.

An enzyme is simply a protein molecule that, in the presence of other chemicals, “catalyzes” (speeds up) chemical reactions. By lowering the “activation energy” required for a reaction to take place, in many cases to millions of times lower than normal, chemical processes that would normally happen too slowly to be of value are able to take place very quickly. A useful way to think about this idea is to compare it to how water boils at a lower temperature at higher altitudes. At sea level, you have to heat water to 100 degrees Celsius to make it boil- but in Denver, Colorado, the lower air pressure decreases the boiling point of water to 95 degrees. There is less “resistance” to the reaction- the change from liquid to gas- because of the lower air pressure. Enzymes work similarly, changing the conditions around the chemicals to reduce the amount of energy needed for a reaction to take place.

This is important for living things, including humans. Most of the chemical processes that our bodies need to survive would normally take much too long to be useful to us. It’s only because of enzymes that we are able to digest our food in a matter of hours, rather than months or years. In fact, people who are lactose intolerance are actually suffering from a shortage of lactase- the enzyme that breaks down the lactose protein found in milk. Enzymes are also necessary for the chemical reaction that turns stored energy in our bodies into the muscle contractions that let us move around. Our bodies contain thousands of different kinds of enzymes, each of which influences a different chemical reaction.

“This is all fascinating”, you say, “but what does this have to do with getting wine stains out of my carpet?” The answer is that breaking up a stain is a chemical process, just like digesting milk. Regular cleaning products such as dish soap are “surfactants”, meaning that they allow water and oils to mix. This allows grease to dissolve into water, and wash away. Unfortunately, this is useless for removing many types of unwanted material- especially uric acid crystals. These tiny crystals, found in urine, are the reason pet urine stains carpets and retain their unpleasant smell. Surfactant cleaners are unable to break the chemical bonds that bind such crystals to the stained surface. Enzymatic cleaners, on the other hand, jumpstart the breaking down process of the chemical bonds in the stain. It’s as if time were sped up many thousands or millions of times over for the stain, causing it to degrade “naturally” in a matter of minutes or hours.

Enzyme-based cleaners are not suitable for all purposes, however. They are only recommended for use on organic stains. For our purposes, that simply means a stain caused by some natural, biological material- if it came out of an animal or plant, it’s organic. This would include feces, urine, blood, vomit, chocolate, coffee, even cigarette smoke. Stains from engine oil, though, would benefit more from the use of a surfactant- like laundry detergent- than from an enzyme-based cleaner.

Apart from concerns of effectiveness, many consumers prefer enzyme-based cleaners because they have a much lower environmental impact as compared to typical cleaning products. Conventional cleaners contain bleach, ammonia, hydrochloric acid, and other extremely toxic, corrosive chemicals. These artificially-created chemicals tend not to break down on their own, and hang around in our environment- or your home- long after you use them. Although they are widely sold and used, there is growing evidence that the high amounts of these chemicals have serious impacts on our health, and the quality of our water and air. The enzymes found in cleaners, on the other hand, have no notable impact on living beings and do not accumulate in our air and waterways. There is no need to keep children or pets away from areas that have been treated with enzymatic cleaners, as one would with a corrosive chemical cleaner, making them safer and more convenient for many users.

All our cleaners are:

- * **Non toxic**
- * **Non-flammable**
- * **Non-bacterial**

- * Non-irritating
- * Hypoallergenic
- * Biodegradable
- * Ecologically Safe

Carpets. Enzymes work well for blood stain removal and they are very effective in reducing (or in most cases, eliminating) odors caused by urine, vomit and other organic-related odors. When odors are in carpet backing, use a carpet syringe and inject 1 ounce of undiluted enzymes through the backing onto the sub-floor. Several injections are required to cover a large area. Each injection should cover a 3-foot diameter area. Enzymes can be used on all other water-safe fabrics that contain odor or stains caused by the same organic matter that also stain carpeting.

- # Non-pathogenic and non-toxic formulation
- # Digests organic wastes and eliminates strong odors
- # Can be used straight, or as an additive and booster
- # Use as a spotter on tough protein spills like blood, eggs and milk

is a stain remover, enzyme digestant and deodorizer recommended for spot cleaning and deodorizing carpets, upholstery, textiles, vinyl, leather and synthetics. This product neutralizes offensive odors and actually digests protein and organic stains and soils.

Can be used as pre-spot treatment before shampooing or laundering
Dissolves grease, dirt and oil based stains

REMOVES: Grease, Wine, Iodine, Cosmetics, Mildew, Dirt, Protein, Ink, Blood (use gloves)

USE ON: Carpet, Leather, Upholstery, Vinyl, Synthetics, Textiles

contains enzyme producing bacteria that digests malodors and waste caused by dampness, mildew, mold, food, urine, vomit, fecal and organic matter. Can be used on carpet, upholstery, concrete, cinder block, porous surfaces, grout joints, painted surfaces, garbage cans and trucks, waste containers, mattresses and all water-safe textiles, linens and surfaces.

- * Non-staining on carpets, upholstery and water-safe surfaces
- * Non-toxic to animals and humans
- * Biodegradable

RECOMMENDED FOR: Animal Shelters, Restrooms, Carpet Cleaners, Prisons, Clinics, Hospitals, Schools, Office Buildings, Hotels/Motels, Restaurants, Waste Facilities, Nursing Homes