



FOCUS ON “NEUTRAL” CLEANERS

by Rick Meehan

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To tackle the frothy subject of so-called “neutral” cleaners, we have to do a little review on the purpose of detergents. You may recall from one of my prior articles, “Soap Is Not An Opera,” that surface tension affects your bottom line. By adding a detergent to water, surface tension is reduced, thus increasing the “wettability” of the surface to be cleaned.

Profits are directly affected by the ability of a detergent to do its job – clean the surface. Therefore, the wettability factor of a detergent determines whether it will aid in cleaning that surface. Notice that I said “aid.” Wettability is not the only determining factor in how well a detergent works for you. Yet, a detergent should work for you, reducing your overall labor and chemical costs.

Neutral Cleaner, also known as the Pink Soap (sometimes other colors), the Foamy Junk, the All-Purpose Detergent, the General Sanitation Cleaner, the General Purpose Grime Remover, or in the case of my own company, Marko SC-100 All Purpose Cleaner (part of our Super Care™ floor maintenance line), is the most common type of detergent used by cleaning contractors. Naturally this means they carry the biggest load of dirt, pun intended. For this reason a thorough understanding of their capabilities means monetary savings.

Wettability

Now, let’s review surface tension (wettability).

Every surface has tiny pores and blemishes that harbor dirt and germs. The surface tension of water covers over those blemishes much like

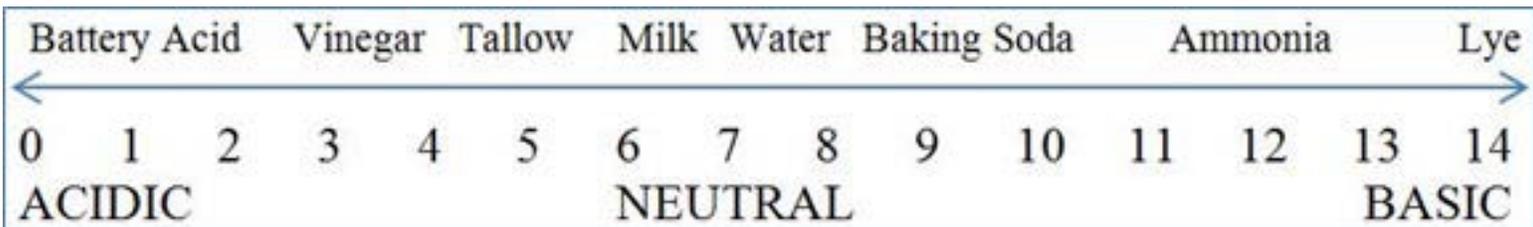
a skin, which in turn traps the debris in those near-microscopic pockets.

See how the paper clip floats on that “skin?” Adding a detergent to water reduces the surface tension so that the mixture will penetrate into those small pockets, thus allowing the detergent to surround and breakdown the grime. The detergent then buoys the grime so it can’t sink back to the surface as easily.



It is also important to remember what the word “neutral” means as pertaining to cleaning chemicals. Ideally, a neutral cleaner should have a pH that runs between 6.9 and 7.3, about the same as tap water. The closer the pH is to 7.0 on the scale, the more neutral the detergent. Here’s the pH Scale for reference:

Why should a neutral cleaner have this



narrow pH range? The strict definition of “neutral” according to Merriam-Webster is “not helping or supporting either of two opposing sides; impartial.” In our case, the opposing sides are acidic and basic. When combined, chemicals from the opposite ends of the scale cancel each other out to become “neutral,” neither acid nor base.

Think of it this way. Drinking water does no harm to your body, but battery acid or lye will eat your guts out. That’s pretty graphic, but essentially what would happen to an acrylic floor finish if a harsher chemical like bleach were used in the mop water. In medical vernacular, a neutral detergent is designed to “do no harm.” In fact, the way I always explain neutral cleaners without this background information is to say, “If tap water won’t harm the surface, then a neutral cleaner won’t either.” It is therefore reasonable to assume that a neutral cleaner is designed to clean most surfaces not harmed by plain water.

The traits of a quality, all-purpose neutral cleaner are:

- Color is usually light, ranging from pink to sky blue, sometimes clear to translucent.
- 100% biodegradable, meaning it will not harm the environment if poured on the ground. (All bets are off after the cleaner is contaminated with grime.)
- Concentrated, highly dilutable with water.
- pH very close to 7.0 – neutral.
- Good stability when the ambient temperature is very cold or very hot. In other words, the product doesn’t separate while sitting on the shelf.
- Not flammable or combustible.
- Free of harsh solvents (No Volatile Organic Compounds, or V.O.Cs)
- Water soluble and free rinsing, leaving no residue.
- Good wettability, meaning it loosens soil from microscopic surface pockets and keeps debris buoyed and surrounded while rinsing.
- Does not create harsh fumes under any circumstances.
- Will not harm multiple surface types.

Quality neutral cleaners tend to be pricey. However, if you are purchasing your product from a reputable dealer, the extra money

saves the most dollars in the long run. Don’t be fooled into purchasing a special “Green Cleaning” product at a higher price. The fact is, unless some harsher chemical such as a petroleum based solvent has been added, or the detergent is significantly higher or lower than 7.0 on the pH scale, the very act of manufacturing a neutral cleaner makes it a “green” cleaner. It always has. Besides, once any cleaner is used for its intended purpose, it becomes contaminated with whatever type of grime it was used to remove. Sometimes that grime is not environmentally friendly when disposed of improperly. Know your cleaning chemicals so you don’t spend extra money based on “green cleaning” pseudo-science.

Since neutral cleaners are the most popular detergents on the market, choosing good ones from the thousands out there can be challenging. Besides the list of traits to look for, there are other ways to determine the best soap for your company. It is important to understand that household cleaners are NOT the same as industrial/commercial cleaners. In general they are weaker, less dilutable with water, safer to use and store. They are designed for laymen, not professionals. Under no circumstances should a commercial cleaning outfit be using household chemicals if they are serious about saving money.

Let’s take an example (without naming names, but using real prices):

XYZ Fresh ‘n Clean All Purpose Detergent (household national brand) is used straight from the 32 ounce trigger spray bottle, one quart, that it comes in. Sure, it works fine, and is fairly cheap at only \$3.49 per bottle. Let’s divide that out: $\$3.39/32 = \0.10 , or a dime per ounce. The job is large enough to require the use of a full 32 ounce bottle every day.

ABC Commercial Cleaner (national brand) is diluted at the rate of 1 part cleaner to 128 parts water to achieve the same results as XYZ Fresh ‘n Clean, but it doesn’t come in a convenient trigger spray bottle. It comes in gallon jugs instead. The cost per gallon is \$14.99. A gallon equals 128 ounces, so let’s divide that out: $\$14.99/128 = \0.12 , or 12 cents per ounce. Why, that’s more costly by two whole pennies!

Or is it? Don't forget to factor in the dilutability – one ounce of ABC per gallon of water. What? Why that's really a cost of only 12 cents per gallon! With a bit more math we find that by dividing 12/4 (4 quarts in a gallon, remember), the cost of ABC is really only three cents per quart versus XYZ at a whopping \$3.39! Since the job requires a quart of cleaner per day, we save \$3.36 EVERY DAY!

What about the cost of the trigger sprayer and the labor involved with diluting the product before use? These are valid questions.

A trigger sprayer can be used many times and the spray nozzles can be replaced without having to buy the bottle too. The average cost of a good quality trigger sprayer is \$2.29. Spread that out over the course of a month or so until the trigger wears out – add seven cents per day to your chemical cost to be safe. If labor costs \$11 per hour and it takes 10 minutes each day to prepare a properly diluted quart, add another \$1.83 in labor costs. Let's see, that's 1.83 plus .03 plus .07, which equals \$1.93 per day. That's still a savings of \$1.46 per day.

Keep in mind that there are dilution methods and dispensing options that will reduce the costs of this process drastically too.

Now, let's get down to the brass tacks, or in other words, the basics of finding the right neutral cleaner which will save a commercial cleaning company the most money in the long run. Claims on labels are sometimes misleading, especially when you consider that every cleaning job is different.

General purpose cleaners are generally labeled with general instructions that cover general cleaning jobs. The key here is the word "general." Generally speaking, it's always a good plan to run tests on various brands of neutral cleaners, following instructions exactly, to determine which particular cleaner works best for most general cleaning purposes. General cleaning purposes include projects such as mopping waxed floors, wiping countertops and fixtures, washing painted or vinyl-covered walls, exterior window cleaning, light degreasing of surfaces, etc. By diluting a target product according to the label and testing it on these various general surfaces, using the same janitorial staff person, with the

same cleaning equipment if possible, a fair determination can be achieved.

My personal favorite way to pick the best neutral cleaner is to actually test products side by side so results can be seen immediately. When it becomes apparent which of the test products works best for your particular situation, nail it down in writing and train all of your personnel in its proper uses.

Keep in mind that the biggest drain on chemical dollars comes from untrained personnel either overusing or underusing said product. Overuse is waste; underuse means harder labor; both situations mean a poorer job. Poor jobs cost customers.

Test, test, and retest. Save a bunch of headaches and get yourself a quality all-purpose neutral cleaner for your company.

Just as having the right tool for the job saves labor, increases safety, and gets the work done, so does using the right cleaner. Neutral cleaners are staple tools of our trade.

If the soap performs poorly, a variety of problems will occur. Wet shoes may slip on soapy film, windows may look greasy, floor finishes may become dull or yellowed, other surfaces may feel dirty, odors may exude from dirt and germs that remained behind to fester, among a myriad other problems.

In short, an incorrect choice of detergents will not have the characteristics needed to perform well. So make your all-purpose neutral cleaner carry the dirty load to leave a sparkling facility behind that would make any client ecstatic!



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