

Unleash the Killer Bubbles

WHAT'S INSIDE PALMOLIVE ULTRA*

TRICLOSAN

Antibacterial soaps kill, well, bacteria—often with this broad-spectrum antimicrobial agent, which inhibits fatty acid synthesis. In higher concentrations, it destabilizes bacterial cell walls.

AMMONIUM C12-15 PARETH SULFATE

In solution, this detergent creates negative ions, which cut grease. When mixed with bleach, it releases killer chlorine gas, a chemical weapon used in World War I. Good news: We're still alive, so there's no bleach in here.

MAGNESIUM ISODODECYLBENZENE-SULFONATE

Everything gets nice and foamy because of this surfactant cleaner.

LAURAMIDOPROPYLAMINE OXIDE

This foaming aide keeps those tiny soap bubbles stable throughout the cleanup process. It also thickens the dishwashing liquid, so you'll feel like you're getting your money's worth.

SD ALCOHOL 3-A

Alcohol is chemically similar to water, so it can work its way into bacterial cytoplasm, where it makes the proteins fall apart, killing the cell.

SODIUM XYLENE SULFONATE

Known to chemists as a hydrotrope, this compound makes it easier for the other molecules in the detergent to dissolve in water. (Hydrotropes also can help to create high-foaming cleansers.)

SODIUM BISULFITE

This food additive is often used as an anti-fermentation agent to prevent bottled wine from turning into vinegar. In soap, it works as another antiseptic.

DMDM HYDANTOIN

A preservative that works by breaking down into, among other things, formaldehyde. Whatever was living on your dishes is now dead.

PENTASODIUM PENTETATE

A chelating agent that softens hard tap water by binding with dissolved metal ions, preventing them from being deposited as a yucky residue on your nice clean dishes.

—PATRICK DI JUSTO



*Palmolive Ultra Concentrated Antibacterial Dish Liquid (With Orange Extracts)

Disembowel Your Eyeball Germs

WHAT'S INSIDE BAUSCH & LOMB RENU

Dymed

Contact lens solution has to strike a balance between killing germs and not burning your eyes when you pop the lenses in. Dymed (polyaminopropyl biguanide) is an antimicrobial agent that attaches to bad little bugs and rips open their cell membranes, letting their guts spill out. Fortunately for your eyeballs, it only works on single-celled organisms.

Hydranate

Known by chemists as hydroxyalkylphosphonate, it removes protein deposits, eliminating the hassle of a separate enzyme treatment. The eye's lubricating fluid contains mucus protein, which over time can build up and cloud your vision like a snot cataract. Hydranate is a compound that traps the mucus molecules and lifts them off the surface of the lens.

Boric Acid

It's a fire retardant, a nuclear reaction controller, and the stuff that turns silicone oil into Silly Putty. Grandma knew it as an antiseptic eyewash, here it's also a pH buffer. But boric acid has been tagged by the feds as an infant-killing poison. There's only a dash in ReNu, so don't worry—unless you experience one of the more memorable symptoms of boric acid toxicity: blue-green vomit.

Edetate Disodium

This commonly used compound sequesters metallic ions (calcium from tears or possibly particles from air pollution) that might otherwise react with the lens.

Poloxamine

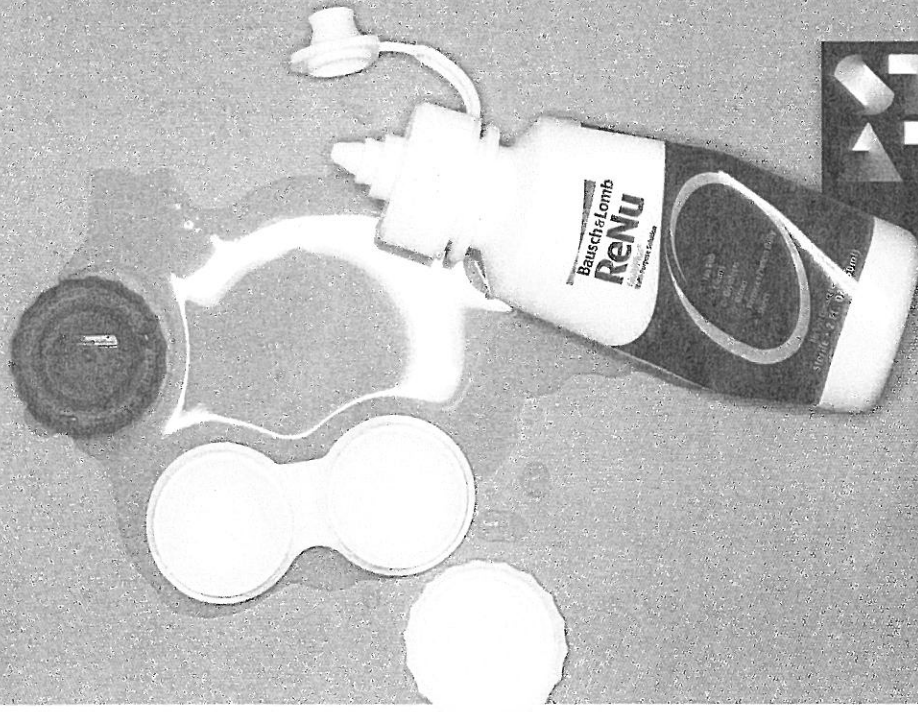
Made of multiple oxyethylene and oxypropylene segments, poloxamine is used in gene therapy as an alternative to artificial viruses for carrying DNA into cells. In this solution, it's just a surfactant that ensnares lipids so they can be washed away.

Sodium Borate

More widely recognized under the alias Borax, it's the same crystalline alkali dust found in Death Valley. It's added to ReNu as a buffering agent, keeping the solution at a comfy pH of 6.5 to 7.8, so you never have to utter the words "Ahhh, my eyes!"

Sodium Chloride

Since soft lenses are liquid permeable, you want to make sure that your cleaning fluids are as osmotically close to tears as possible. That calls for a pinch of salt—otherwise, the lenses would dry out. Add too much, of course, and your lenses will suck all the moisture out of your eyes, get over-saturated, and start to weep. Creepy.
—Patrick Di Justo



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Study says even 'safe' drinking water poses risks to elderly

By BOB NORBERG
THE PRESS DEMOCRAT

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Using extra water filters can reduce the number of stomach illnesses experienced by the elderly in Sonoma County, even though the drinking water meets all standards, according to a UC Berkeley study.

The difference, 12 percent, could be significant because the elderly tend to be less tolerant to pathogens and get gastrointestinal illnesses more severely, said John Colford Jr., the principal researcher for UC's School of Public Health.

"It is statistically significant, it is larger than you expect to see by random chance," Colford said. "It is important."

Colford, however, said the study is not an indication that Sonoma County Water Agency water, which meets all state and federal standards, is unsafe.

Instead, he hopes the study will become part of an Environmental Protection Agency debate on whether there should be higher water standards for children, the elderly and those with immunology problems, such as cancer patients on chemotherapy.

"The study wasn't about Sonoma. We did it in Sonoma County because the water is so good," Colford said. "It was to see that when people were getting U.S. standard water, is there additional benefit from this overkill?"

The five-year study cost \$2.8 million and was financed by the federal National Institute of Health. It is being published in the November edition of the American Journal of Public Health.

Water Agency spokesman Tim Anderson said the agency will be examining the study to figure out what it means for water purity. The agency last conducted 477 tests for e-coli and coliform with negative results.

"If research findings are showing things that can impact public health, we would like to know more," Anderson said. "Our No. 1 concern is providing a safe product that protects people's health."