



CLEANERS & DEGREASERS

WHAT IS pH?

Don't be afraid of the chemical term pH!

It is defined chemically as the negative logarithm of the hydrogen ion concentration.

Only those materials that will disassociate or ionize in water will have a pH.

Hydrochloric acid or muriatic acid whose chemical formula is HCL will ionize in water to give hydrogen ions, H⁺, and chlorine ions, Cl⁻. Sodium hydroxide, NaOH, will ionize in water yielding Na⁺ ions and OH⁻ ions. Hydrogen ions are a measure of the acidity of a material while OH⁻ ions, or hydroxyl ions, are a measure of alkalinity.

The formula for pure water is H⁺ OH⁻ meaning that there is an equal number of acid ions H⁺ and OH⁻ hydroxyl ions, which offset each other to form a neutral compound. The hydrogen ion concentration of water is 1 X 10⁻⁷. The logarithm is -7 and the negative logarithm is 7. The pH of water is, therefore, 7 and a pH of 7 indicates a neutral material.

The pH scale runs from 1 to 14. Any material that is below a pH of 7 is acidic in nature and anything above a pH of 7 is alkaline in nature. The further you go down the scale from pH 7, the more acid the product is and the further one goes up the scale from 7, the more alkaline the product is.

Since the scale is based on logarithms of 10, each unit on the scale is a factor of 10. For example, if orange juice has a pH of 3.5 and beer has a pH of 4.5, orange juice is 10 times more acidic than beer.

Acid bowl cleaners can have a pH less than 1, showing that they are very acid in nature. This pH is necessary in products of this type to remove scale and iron deposits from inside the bowl. These soils are alkaline in nature. Therefore, an acid is needed to remove them.

Most soils, however, are acid in nature and therefore, need alkaline products to remove them. An all-purpose cleaner or degreaser may have a pH of anywhere between 9 and 13, depending on the type and quantity of the soil that the product is expected to encounter. Products that are formulated for light duty cleaning may have a pH of 9 to 10, whereas a degreaser may have a pH of 13, meaning that with a pH of 13, the degreaser is 1,000 times more alkaline than the all-purpose cleaner at a pH of 10.

Some examples of the pH of the Sprayon products are shown in the following chart.





Sprayon Power Bowl™	1.0	1	Sprayon Pine Value™	11.5
Sprayon Bowl Blast™			Sprayon No Rinse Floor & Wax Stripper	11.6
Sprayon Lime-Be-Gone™	1.5		Sprayon Tergent-Force™ Pink	11.7
Sprayon Transparent Glass Cleaner	3.8		Sprayon Tergent Force™ Blue	
Sprayon Fab Blast™	4.0		Sprayon Maintenance Power™	12.5
Sprayon No'Dor™	5.0		Sprayon Multi-Surface Cleaner	12.8
Sprayon Pink Soft™	6.8		Sprayon Butyl Force™	12.9
Sprayon Zyme Blast™	7.0	7	Sprayon Oven Power™	13.0
Sprayon Neutra-Force™			Sprayon Maintain™	
Sprayon PW Cleaner/Degreaser			Sprayon Ammoniated Detergent & Stripper	
Sprayon Citrus Cleaner/Degreaser			Sprayon Turbo Green™	
Sprayon Neutra-Power™			Sprayon Butyl Strike™ Lemon	
Sprayon Bleach Bright™	7.5		Sprayon Impact™	13.2
Sprayon Multi-Spot™			Sprayon Break Down™	13.3
Sprayon Bubble Burst™			Sprayon Scrubber King™	
Sprayon No-Streak Glass Cleaner			Sprayon Alka Force™	13.4
Sprayon Laundry Force HD™	8.0		Sprayon Mop 'N Melt™	13.7
Sprayon Force Shield™				
Sprayon Value Shield™				
Sprayon Surface Sealer™				
Sprayon Lather Clean™				
Sprayon Diamond Shield™	8.2			
Sprayon Lemon Wood™	8.5			
Sprayon Terrazzo Shield™				
Sprayon Scuff Shield™				
Sprayon Metal Rejuvenator	9.0			
Sprayon Lanolin Soft™	9.5			
Sprayon Aqua-Orange™				
Sprayon Plasti-Glass™				
Sprayon Sterile Soft™	9.8			
Sprayon Multi-Surface Aerosol Cleaner	10.4			
Sprayon Magnum Green™	10.5			
Sprayon Un-Obscured™				
Sprayon Laundry Force™	10.7			
Sprayon Carpet Extract™				

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pH plays an important role in our everyday life – what we eat and drink, the materials that we use to cleanse our bodies and clothing, the medicines that we take, and even the air we breathe.

The understanding of pH can be a valuable tool to help us not only in the workplace, but also in many of our daily activities.

