pH Reduction / Acid Comparisons

pH	pHase® %w/w	Citric Acid %w/w	75% Phosphoric Acid %w/w	Lactic Acid %w/w	20% Acetic Acid %w/w	Malic Acid %w/w	Fumaric Acid %w/w	GdL %w/w	pH
7.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.750
7.500	0.002	0.001	0.001	0.001	0.006	0.001	0.001	0.008	7.500
7.000	0.005	0.003	0.002	0.006	0.013	0.004	0.002	0.025	7.000
6.500	0.013	0.009	0.006	0.015	0.038	0.008	0.007	0.045	6.500
6.000	0.023	0.012	0.016	0.023	0.050	0.012	0.011	0.075	6.000
5.500	0.027	0.016	0.025	0.027	0.075	0.016	0.014	0.095	5.500
5.000	0.031	0.020	0.030	0.030	0.100	0.020	0.016	0.105	5.000
4.500	0.033	0.028	0.031	0.033	0.200	0.027	0.019	0.115	4.500
4.000	0.035	0.041	0.033	0.043	0.525	0.036	0.023	0.135	4.000
3.500	0.037	0.067	0.035	0.074	2.063	0.061	0.034	0.200	3.500
3.000	0.046	0.159	0.045	0.213		0.176	0.071	0.530	3.000
2.500	0.100	0.650	0.101	0.920		0.860	0.335	2.800	2.500

Use this chart to calculate the initial pHase® addition rate in your product formulation. Further adjustment may be necessary to achieve the optimum addition rate for pHase.

1. Select target pH with current acid.
2. Move across chart to pHase® at same pH.
3. Use ratio of acids (%w/w) to calculate the amount of pHase needed for replacement.

Key:
%w/w=weight/weight%

Source Water:
Natural Spring Water

Example:
How much pHase® is needed to replace 2.5 grams of citric acid in a formula with a pH of 3.0?

1. Citric acid, pH 3.0=0.159 %w/w
2. pHase, pH 3.0=0.046 %w/w
3. Calculation is: 2.5 *(0.046/0.159)=0.72 grams of pHase at pH 3.0

*Make sure pHase %w/w is the numerator in your calculation.

pHase® Lowers pH With No Sour Taste.

pH is a function of acid concentration. Low pH is necessary for preservation and stability, but sour taste can often overpower the intended flavor of your formula. Sensory analysis proves pHase eliminates unwanted sour taste in low pH products.

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pHase® Sodium Acid Sulfate

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