

pHase LOWERS pH WITHOUT A SOUR TASTE

Low pH is necessary for preservation and stability. However, since pH is a function of acid concentration, a sour taste can often overpower the intended flavor of your formula.

Sensory analysis proves that pHase eliminates the sour taste in low pH products.

pHase™





pHase Addition and Substitution Rates

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.

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



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: $2.5 \times (0.046/0.159) = 0.72$ grams of pHase at pH 3.0

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

pHase, A Unique Acidifier

pHase, sodium acid sulfate, is a dry granular acid, with the unique ability to lower pH without generating a sour taste. Its clean acid taste has no fruity or vinegar quality, but gives a soft, round flavor on the palate, offering a more natural overall flavor characteristic with a bright, clean aftertaste.

Benefits of pHase

- Low addition rate
- Low sour intensity
- Reduction in sweetener usage
- Potential reduction in the use of salt in prepared foods
- Acrylamide reduction
- Product stability, increased shelf life

Applications

Ideal applications for pHase include:

- Salad dressing
- Sauces
- Soups
- Salsas
- Prepared salads
- Syrups
- Confectionary fillings
- Beverages & concentrates
- Beer, wine & distilled beverages



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