

FOOD52

On Chemical Leaveners



by **Miranda Rake** • May 1, 2012

*Inspired by conversations on the **FOOD52 Hotline**, we're sharing tips and tricks that make navigating all of our kitchens easier and more fun. Today, we're talking about chemical leaveners.*



You know what really gets a rise out of you **Hotliners**? Leavening! That's what!

A lot of Hotline conversations begin with questions about the way cakes, cookies, muffins and the like rise (or fall). From general inquiries like "**Why didn't my cake rise?**" to **much more specific calls for help**, the topic arises again and again. So this week we're talking about chemical leaveners -- namely baking soda and baking powder -- and why certain recipes call for one or the other (or sometimes both).

In her excellent book *Bakewise* <http://www.amazon.com/BakeWise-Successful-Baking-Magnificent-Recipes/dp/1416560785/ref=sr_1_1?ie=UTF8&qid=1333054660&sr=8-1?tag=food52-20> , Shirley Corriher <<http://www.shirleycorriher.com/>> devotes a fair amount of space right away to chemical leaveners, identifying the Two Biggest questions that face home bakers regarding chemical leavening: "How much chemical leavener to use? and How to evenly distribute the leaveners throughout the batter or dough."

The key to answering these questions is understanding the nature of the leaveners that we're working with. If you're like we were before we researched this post, you know little about leaveners other than that they're not to be tinkered with when tweaking recipes. You may find it interesting -- as we did -- to learn that baking soda and baking powder are actually not so very different.



Baking Soda

Baking soda is sodium bicarbonate and is "moderately alkaline," according to Mrs. Corriher. It can have an unpleasant "soapy" taste if it isn't balanced out by an acid of some kind in your muffin or scone. However it is really powerful, with 4 times the leavening strength of baking powder when you combine it with ingredients whose acids can neutralize baking soda's flavor. Corriher lists chocolate, molasses, honey, citrus juice, buttermilk and brown sugar among the ingredients that play well with baking soda.

Baking Powder

Baking powder is generally less powerful than baking soda because it is actually *made from* baking soda! In fact, there is an awful lot of conversation about the ease of making your own baking powder. In this handy **Hotline thread** about cookie leavening, **Shuna Lydon** <<http://eggbeater.typepad.com/about.html>> jumps in with some great tips about baking powder:

"Making your own baking powder is really easy and a fantastic solution if you can't find non-alluminated in your area. Baking soda can be found in most 'creaming method' cookies (such as chocolate chip or snickerdoodles) because brown sugars are high in acid. It's important to know that baking powder makes recipes stale faster and, for many people, tastes bitter or metallic. I prefer less rise and use **Rumford baking powder** <<http://www.clabbergirl.com/consumer/products/rumford/>> or make my own."

Want to make your own baking powder? Shuna's got a recipe for it on **her blog** <http://eggbeater.typepad.com/shuna/2006/12/baking_powder_h.html> :

Homemade Baking Powder

1/4 cup cream of tartar
2 tablespoons baking soda
1 tablespoon cornstarch (optional)

Sift ingredients. Twice if they began lumpy. Transfer to a clean, dry, tight sealing glass jar. Store at room temperature for up to 6 weeks.



Some General Tips

Shirley Corriher shares her Rules of Leavening in **this interview on Culinate**
<http://www.culinate.com/articles/the_culinate_interview/shirley_o._corriher> :

BAKING POWDER: 1 teaspoon per cup of flour

BAKING SODA: 1/4 teaspoon per cup of flour

If a recipe uses significantly more or less baking soda or baking powder than the measurements above, you should consider tinkering with the proportions, or at least know that the recipe may not turn out.

Self-rising flour is flour with baking powder and salt already added to it (1 1/4 teaspoons of baking powder and 1/4 teaspoon of salt per 1 cup of flour). It too can be easily made at home. The advantage of the pre-made stuff, though, is how evenly the leavener is distributed throughout the flour. This tends to produce a better final product, as sifting often does not adequately distribute leaveners.

Last but not least, as with any ingredient, it is important that your leaveners are no more than about 6 months old. If you want to test their strength, it's simple. Mix a little vinegar with some baking soda; if it fizzes up, it's good. Mix baking powder and water together and look for the same bubbly reaction.



Baking soda (left) and baking powder, passing the freshness test.

Do you make your own baking powder? What are your leavening tips?

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