

Soy Sauce Brewing Differences: In Aroma, Flavor, Ingredients, and Production Process

Like other soy foods, soy sauce has a long and wonderful history of use in many cuisines, especially cuisines in China, Japan, Korea, Vietnam, Thailand, Burma, Indonesia and the Philippines.

The core brewing soy sauce process has used traditional processing for centuries, Today, many people refer to this as the traditional Japanese process or a naturally brewed soy sauce process. There have been some processing changes that we need to consider when purchasing a soy sauce product.

It is important for you to know that there is no requirement by the U.S. Department of Agriculture that traditional methods be adhered to, only that organic rules, like the avoidance of most synthetic pesticides, sewage, sludge fertilizers, genetically modified ingredients, and irradiated ingredients, be followed. So look beyond the criterion of “certified organic” and check to select traditionally fermented products.

What Are the Basic Ingredients of Soy Sauce?

Soy sauce is made using only four basic ingredients: soybeans, wheat, salt and water, which directly influences the flavor and aroma of the soy sauce.

Ingredients:

Soybeans: The proteins are contained in the soybeans, which are soaked in water and then steamed at high temperatures.

Wheat: The carbohydrates are contained in wheat and give soy sauce its aroma and sweetness. It's roasted at high temperatures and then crushed by rollers.

Salt dissolved in Water: This forms the brine used to control the propagation of bacteria during the fermentation and acts as a preservative.

Why Is This So Important?

The processing and ingredients selected will change the flavor, aroma, and health benefits of the final soy sauce product.

How Does It Change It?

Let's look at the traditional fermentation process.

Traditional Natural Brewing Process or Japanese Brewing Process:

- The enzymes naturally break down soybean proteins.
- The soy sauce has a reddish-brown color, well-balanced flavor, and aroma.
- It uses only natural products.
- Products used: wheat provides the soy aroma; micro-organisms such as lactic acid bacteria and enzymes in the fermentation process. Produce a full-bodied flavor and rich aroma.

Are there Any Differences in the Various Soy Sauces?

Chinese Soy Sauce – type used for many Chinese recipes

- Types of Soy Sauce –
 - Dark deep color; high viscosity with additives like caramel coloring and monosodium glutamate (MSG)
 - Light color; lighter color, lower viscosity with MSG and other additives
- Ingredients: Uses wheat flour, bran. (light aroma)
- Undergoes little or no natural fermentation; it has light aroma and flavor.

Japanese Soy Sauce: - Shoyu - used for many Japanese recipes

- Uses an even ratio of soybeans, wheat, and utilizes microorganisms such as lactic acid bacteria and enzymes in the fermentation process.
- Has a natural produced full-bodied flavor and rich aroma
- The consistency will be thinner and clearer.
- There are several different types: light, dark, Tamari, made with soybeans and little to no wheat. There is also a gluten free Tamari Soy Sauce.

Low-Sodium Soy Sauce –

Check the ingredient bottle to see if it has additives

It was suggested by one source that you just add some water to regular soy sauce if you want a low sodium product.

Other Soy Sauce Styles and Variants:

Many Asian countries have their own soy sauce styles such as Indonesian Recap manis, which is a sweet soy sauce native to Indonesia. It is made

with fermented soy beans but is flavored with palm sugar, star anise, galangal and other aromatics.

Chemically Produced Soy Sauce: Short processing time

- It uses hydrochloric acid and may contain corn syrup, salt, caramel coloring and other additives.
- Doesn't use a fermentation process so it is ready for market within several weeks.
- It has a cloudy, dark color and the taste is strong with a chemically produced aroma.
- The general feeling of most sources is to avoid using this product.

Consumers Should Watch Out For:

According to the Cornucopia Institute's Organic Soy Report, Consumers need to be wary of Chinese Imports because of lax oversight by the US Department of Agriculture (USDA) over organic certifiers working in China.

They also cautioned consumers to watch for "natural" soy foods that use hexane, a neurotoxic petrochemical, in processing.

How Can You Find a Quality Soy Sauce?

- Look for a **traditionally brewed** in the US made from a limited number of fresh ingredients
- Look at the label – see if it is free from additives
- Check the color through the bottle neck by tilting it to one side and then the other
- Carefully shake the bottle to see if it has low viscosity and the light passes through

Do a Sensory Check on Your Soy Sauce.

Put some on a small plate

See the color Is it a clear reddish-brown color?

Smell the aroma – Is it slightly sweet?

Feel the thickness – Does it drip down smoothly from a chopstick?

Taste it – Does it have a rich, complex aroma and tasty sweetness?

For More Information about the soy sauce products available and their uses for cooking See:

http://www.kikkoman.com/en/shokuiku/soysaucemuseum/difference/index_en.html

<https://www.bbcgoodfood.com/glossary/soy-sauce>

<https://www.serious-eats.com/2011/03/do-you-know-your-soy-sauces-japanese-chinese-indonesian-differences.html>

https://www.huffingtonpost.com/2014/04/08/soy-sauce_n_5105861.html

<https://www.souschef.co.uk/bureau-of-taste/chinese-japanese-style-soy-sauce-whats-the-difference/>

https://www.cornucopia.org/2009/05/soy-report-and-scorecard/?gclid=CjwKCAjw4sLVBRAIEiwASbIR-7aXN5ITS6m6xzDDMzD3YUyZ1Biq-1XA5TSUSFNkvkOUrdMqNoJQIxoCqksQAvD_BwE