COAGULANTS IN TOFU MAKING

Made from soy milk by a process that involves coagulating the proteins in the milk and then pressing the resulting curds into blocks. Tofu has a subtle flavor and a versatile texture, making it a staple ingredient in various cuisines, especially vegetarian and vegan diets.

Working

- Responsible for curdling the soy milk and forming the solid curds that eventually become tofu.

- They cause the proteins in the milk to undergo a process called denaturation. Denaturation leads to the unfolding and rearrangement of protein molecules. As the proteins interact and bind together, they start to cluster and form curds.

- The choice of coagulant affects the taste, texture, and nutritional content contributing minerals like calcium or magnesium of the tofu.

Types

1. Traditional Coagulants:

1. **Nigari (Magnesium Chloride):**

- A natural mineral-rich substance extracted from seawater that contains magnesium chloride and other minerals.
- Commonly used in traditional Japanese tofu-making. it imparts a slightly bitter taste to tofu and produces a delicate texture.

2. **Gypsum (Calcium Sulfate):**

- A naturally occurring mineral often used in Chinese-style tofu. Gypsum creates a firmer texture compared to nigari and has a neutral flavor.

2. Modern Coagulants:

1. **Calcium Sulphate Solution:**

- Calcium sulfate solution can be used in liquid form to coagulate soy milk. It provides good curd formation and texture.

2. **Glucono Delta-Lactone (GDL):**

- A slow-acting acid often used as a coagulant in the production of silken or soft tofu. It gradually lowers the pH of the soy milk, causing it to curdle.