



Flavor Dynamics offers a vast selection of specially designed flavors for today's challenging applications. FDI's creative team can help you select flavors or work with you to develop a flavor customized to your product specific needs. We at Flavor Dynamics are continuously rethinking the way that flavor creation can be married to new scientific concepts. From working with you on your initial flavor applications to making sure that every order is of consistent, reliable quality, our experienced team is up to any challenge. Contact a salesperson today to find out how we can help make your products better - to help make your business grow.

## Salt Enhancement:

### Natural Salt Enhancer - 3127-JG

The latest research has indicated that salt cannot be replaced effectively due to the innate physiology of the body, but can be enhanced. We at FDI have developed a Salt Enhancer Flavor to do just that.

Ingestion of sodium chloride (NaCl) is essential for life. The neurological basis for complex organic sensory systems is inherently reliant on the presence of sodium; it cannot be circumvented.

A single taste bud contains 50-100 taste cells. When the taste bud does not receive a signal it is at rest. When a salt-sensitive taste cell receives a stimulus containing salt, an ion channel allows sodium ions ( $\text{Na}^+$ ) to enter directly into the cell. This depolarizes the cell, allowing calcium ions ( $\text{Ca}^{2+}$ ) to enter, triggering the release of ATP. The protein pump, called the sodium potassium pump, ( $\text{Na}^+\text{K}^+\text{ATPase}$ ) is how the signal migrates from the stimulus neuron to receptors in the brain. This pump migrates the electronic impulse through the nerve and finally elicits the cognitive effect in the cerebrum.

The conclusion is that salt cannot be replaced; however, it can be enhanced using aroma and taste components. The above flavor does just that. The complexity of sensory stimuli has been observed often. Some stimuli mask each other, some have null effects, while others enhance each other. Disodium 5' Inosinate and Disodium 5' Guanylate are good examples. The combination of each of these enhances, by many times, the strength of each of the individual components.

