

ACESULFAME POTASSIUM

Information in this article was gathered from
http://en.wikipedia.org/wiki/Acesulfame_potassium

Acesulfame potassium is a calorie-free artificial sweetener, also known as **Acesulfame K** or **Ace K** (**K** being the symbol for potassium), and marketed under the trade names **Sunett** and **Sweet One**. In the European Union, it is known under the E number (additive code) **E950**.

Acesulfame potassium was discovered accidentally in 1967 by German chemist Karl Clauss at Hoechst AG (now Nutrinova). It has been in use as a flavor-enhancer since 1988.

Properties

Acesulfame K is 180-200 times sweeter than sucrose (table sugar), as sweet as aspartame, about half as sweet as saccharin, and one-quarter as sweet as sucralose. Like saccharin, it has a slightly bitter aftertaste, especially at high concentrations. Kraft Foods has patented the use of sodium ferulate to mask acesulfame's aftertaste.

Acesulfame K is often blended with other sweeteners (usually sucralose or aspartame). These blends are reputed to give a more sugar-like taste whereby each sweetener masks the other's aftertaste, and/or exhibits a synergistic effect by which the blend is sweeter than its components.

Unlike aspartame, acesulfame K is stable under heat, even under moderately acidic or basic conditions, allowing it to be used in baking, or in products that require a long shelf life. In carbonated drinks, it is almost always used in conjunction with another sweetener, such as aspartame or sucralose. It is also used as a sweetener in pharmaceutical products, especially chewable and liquid medications, where it can make the active ingredients more palatable.

Safety Concerns

As with aspartame, saccharin, sucralose, and other sweeteners stronger than common sugars, there is concern over the safety of acesulfame potassium. Although studies of these sweeteners show varying and controversial degrees of dietary safety, the United States Food and Drug Administration (US FDA) has approved their general use. Critics say acesulfame potassium has not been studied adequately and may be carcinogenic, although these claims have been dismissed by the US FDA and by equivalent authorities in the European Union.

Some potential problems associated with acesulfame have appeared in animal studies, since testing on humans remains limited. Acesulfame K has been shown to stimulate dose-dependent insulin secretion in rats, which might aggravate reactive hypoglycemia ("low blood sugar attacks"). Rodent studies have shown no increased incidence of tumors in response to administration of acesulfame K.