



ASPARTAME

DESCRIPTION

Aspartame (INS 951, E 951) is a low calorie sweetener. It is a dipeptide containing two amino acids, aspartic acid and phenylalanine, two building blocks of protein.

The amino acids in aspartame are found naturally in most protein-containing foods, including meats, dairy products and vegetables.

RELATIVE SWEETNESS

Approximately 200 times sweeter than sucrose.

METABOLISM

Aspartame is digested normally, thereby delivering calories, but because of its intense sweetness, the amounts used are small enough for aspartame to be considered as virtually calorie-free.

Upon digestion, aspartame breaks down to phenylalanine, aspartic acid and a small amount of the organic compound methanol. Phenylalanine is an essential amino acid. Methanol is found naturally in the body and in many foods. The level of methanol in aspartame is insignificant compared to that found in many natural foods. For example, tomato juice contains six times as much methanol as a comparable serving of soft drink sweetened with aspartame.

BENEFITS

- Tastes like sugar
- Enhances and intensifies flavours, particularly citrus and other fruits
- The calories in foods and beverages can be reduced by substituting aspartame for sugar. A tiny amount of aspartame with 1/10 of a kilocalorie produces the same level of sweetness as a teaspoon of sugar with 16 kilocalories.
- Does not promote tooth decay

APPLICATIONS

Aspartame is used to sweeten a variety of foods and beverages, and as a table-top sweetener. It is used in well-known brands of the following foods and drinks:



- carbonated soft drinks
- juices
- puddings, fillings, jellies
- breakfast cereals
- desserts and toppings
- table-top sweeteners (tablets and powder)
- powdered soft drinks
- chewing gum
- fruit preserves
- frozen desserts
- dairy products
- jams and spreads
- confectionery
- hot chocolate drinks
- multivitamins
- micro breath mints
- pharmaceuticals

SAFETY

Aspartame is one of the most thoroughly tested food ingredients ever used in our food. Aspartame is safe and approved for people with diabetes, pregnant and nursing women, and children.

STATUS

Aspartame has been approved by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) (1981), the United States Food and Drug Administration (FDA), and by the Scientific Committee on Food (SCF) of the European Commission - now the European Food Safety Authority (EFSA). SCF re-confirmed the safety of aspartame in its opinion of December 2002.

Aspartame is approved in the EU under the Sweetener Directive 94/35/EC and in more than 90 countries around the world.

Aspartame is widely used throughout Eastern and Western Europe, the USA, Canada, South America, Australia and Japan.

ADI

The Acceptable Daily Intake (ADI) for aspartame has been set at 0-40 mg/kg body weight by JECFA and by SCF, now EFSA. In the USA the ADI has been set at 0-50 mg/kg bodyweight by FDA