



SACCHARIN

DESCRIPTION

Saccharin (INS 954, E 954) is a calorie-free sweetener discovered in 1879. It is widely used to sweeten foods and beverages.

RELATIVE SWEETNESS

300-500 times sweeter than sucrose.

METABOLISM

Saccharin is slowly absorbed, not metabolised. Absorbed saccharin is rapidly excreted unchanged by the kidneys.

BENEFITS

- The calories in foods and beverages can be reduced by substituting saccharin for sugar
- Highly stable, has a good shelf life
- Suitable for cooking and baking
- Does not promote tooth decay
- Suitable for people with diabetes
- Synergistic when combined with other low-calorie sweeteners (the combinations are sweeter than the sum of the individual sweeteners)

APPLICATIONS

Saccharin has a wide range of applications and is used in the following categories:

- table-top sweeteners
- instant beverages
- carbonated soft drinks
- juices
- ice tea
- dairy products
- jams, marmalades
- confectionery, candies
- cider, pickles, sauces
- fish and fruit preserves
- chewing gums
- multivitamins
- ice cream
- puddings and jellies
- chocolate
- toothpaste, mouthwash



SAFETY

Saccharin has a history of a century of safe human use and is probably the most thoroughly researched of all food additives.

The safety of saccharin was questioned in a 1977 Canadian rat study which found bladder tumours in male rats. The doses administered to the rats were unrealistically high – human equivalent consumption of approximately 750 cans of soft drinks or 10.000 saccharin tablets per day, every day, for a lifetime.

The totality of scientific research conducted since then shows that this effect is only seen in male rats at extremely high doses. All research supports the safety of saccharin for human use at the levels currently consumed.

More than 20 human studies, including the largest ever undertaken bladder cancer survey in the US, have shown no overall association between saccharin consumption and cancer incidence.

STATUS

Saccharin has been approved by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) (1993), by the US Food and Drug Administration (FDA) and by the Scientific Committee on Food (SCF) of the European Commission (1995) – now the European Food Safety Authority (EFSA).

Saccharin is authorised in the EU under the Sweetener Directive 94/35/EC and is approved in more than 90 countries worldwide.

ADI

The Acceptable Daily Intake (ADI) for saccharin was increased to 5.0 mg/kg body weight by JECFA in February 1993 and by SCF in June 1995