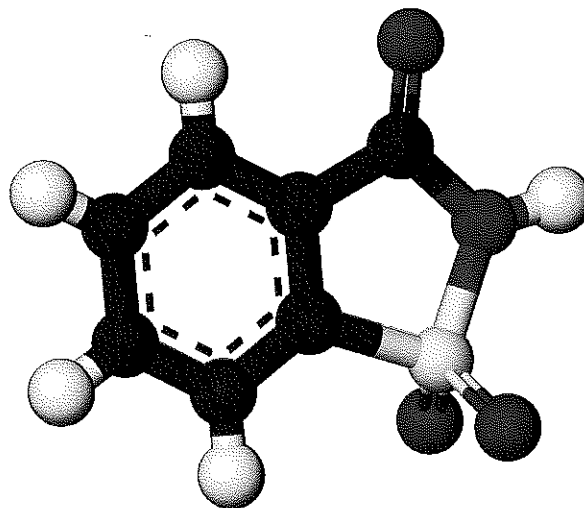
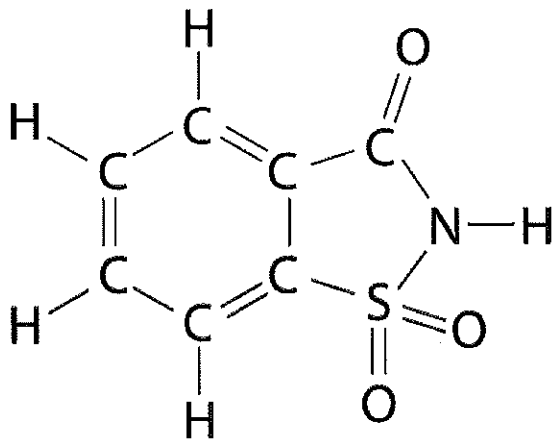


# Fact sheet

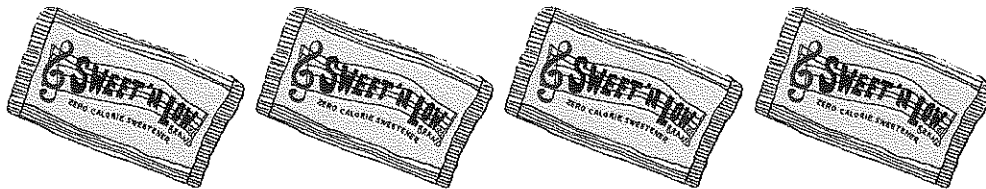
## Saccharin

Saccharin is still made by the oxidation of *o*-toluenesulfonamide, as well as from phthalic anhydride.

The formula for Saccharin is  $C_7H_5NO_3S$ ,  
( $C_7H_5NO_3S$ ).



Today saccharin is used in a wide range of low- and no-calorie and sugar-free foods and beverages, including tabletop sweeteners, baked goods, jams, chewing gum, canned fruit, candy, dessert toppings and salad dressings as well as cosmetic products, vitamins and pharmaceuticals. It is commonly used in artificial sweeteners to provide a low-calorie substitute. (Sweet n Low).



Saccharin is not naturally made, it is created when a series of chemical reactions occurs. The anthranilic acid is used to react with these three substances, sulfur dioxide, chlorine and ammonia. It is mainly carbon-based with a sulfur molecule.

Some negative effects of Saccharin are headaches, breathing difficulties, diarrhoea, and skin problems. A positive effect is that it has been proven to help people with diabetes because it doesn't get digested it just goes straight through the body and releases insulin.

Another sweet molecule that is like Saccharin is cyclamate and Aspartame. They are other molecule that serve as very sweet foods.

Saccharin has been used in foods and drinks for over 100 years a non-caloric sweetener. Saccharin was discovered on accident in 1879 by a university scientist, Johns Hopkins.

### Does Saccharin cause cancer?

Studies in laboratory rats during the early 1970s linked saccharin with the development of bladder cancer. For this reason, Congress mandated that further studies of saccharin be performed and required that all food containing saccharin bear the following warning label: *"Use of this product may be hazardous to your health. This product contains saccharin, which has been determined to cause cancer in laboratory animals."*

Subsequent studies in rats showed an increased incidence of urinary bladder cancer at high doses of saccharin, especially in male rats. However, mechanistic studies (studies that examine how a substance works in the body) have shown that these results apply only to rats. Human epidemiology studies (studies of patterns, causes, and control of diseases in groups of people) have shown no consistent evidence that saccharin is associated with bladder cancer incidence. Because the bladder tumors seen in rats are due to a mechanism not relevant to humans and because there is no clear evidence that saccharin causes cancer in humans, saccharin was delisted in 2000 from the U.S. National Toxicology Program's *Report on Carcinogens*, where it had been listed since 1981.

So no, Saccharin does not cause cancer. At least not in humans, that is.

#### **Related molecules:**

-Cyclamate

Both also serves as sweet foods

Aspartame

