

FOOD FLAVOURING

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Taste is fairly well understood. It is detected by the tongue and is neatly categorised into sweet, bitter, sour, salty and umami. If food was only experienced as taste, chefs and restaurant critics would be out of a job. Luckily, taste is only one facet of the complex thing we call flavour. Flavour is, of course, the stock in trade of chefs. For centuries, they have been combining flavours to create something that is more than the sum of its parts. From a scientific point of view, however, flavour is not that well understood.

Flavorings are used as food additives for altering and/or enhancing the flavors of natural food products. Sometimes, food flavorings are also used to create flavor for food products that do not have desired flavors such as candies and other snacks. There are three major types of food flavorings that are used in foods: natural flavoring substances, nature-identical flavoring substances, artificial flavoring substances.

Natural flavoring substances: Flavoring substances that are obtained from plant or animal raw materials, by physical, microbiological or enzymatic processes are classified as natural flavoring substances. These natural flavorings can be either used in their natural form or processed form for consumption by human beings. However, they cannot contain any nature-identical or artificial flavoring substances. They are used in the minimum quantity required to produce their intended physical or technical effect and in accordance with all the principles of good manufacturing practice. In the appropriate forms (plant parts, fluid and solid extracts, concentrates, absolutes, oils, gums, balsams, resins, oleoresins, waxes, and distillates) they consist of one or more of the following, used alone or in combination with flavoring substances and adjuvants generally recognized as

safe in food, previously sanctioned for such use, or regulated in any section of this part.

Nature-identical flavoring substances: Nature-identical substances are the flavoring substances that are obtained by synthesis or are isolated through chemical processes, which are chemically identical to flavoring substances naturally present in products intended for consumption by human beings. These flavorings cannot contain any artificial flavouring substances.

Artificial flavoring substances: Flavoring substances that are not identified in a natural product intended for consumption by human being- whether or not the product is processed- are artificial flavoring substances. These food flavorings are typically produced by fractional distillation and additional chemical manipulation naturally sourced chemicals or from crude oil or coal tar. Some artificial flavors are safer than their natural counterparts. Benzaldehyde is almond flavor, and when derived from nature, traces of hydrogen cyanide--a deadly poison--can be found in it. When made by mixing oil of clove and amyl acetate, no cyanide is produced. Artificial flavors are actually better in many cases, because they don't contain contaminants or toxins. However, benzaldehyde made either way can cause central nervous system depression and convulsions.

This is not always true, however. Vanilla, artificial vanilla, can cause allergic reactions. It can limit the liver enzyme dopamine sulphotransferase by 50%. Its sources are the waste product of paper mills and petroleum. It can be very difficult to know which is better: artificial or natural. It is hard to find a list of all flavorings to research them all. It is thus best to avoid flavorings in general.

Amyl acetate is pear and banana oil. Many artificial flavors are made using amyl acetate. It may cause nervous system depression, indigestion, chest pain, headaches, fatigue, and irritate the mucus membranes. A close relative, amyl

alcohol, is known to be toxic. Benzyl acetate is also related to this chemical and may cause gastrointestinal, bronchial, skin, and eye irritation.

Smoke flavoring substances : Although it is not one of the basic flavorings, smoke flavoring has come up as a significant food flavoring substance in the world of food additives. Smoke flavoring is a natural flavouring concentrate obtained by subjecting untreated and uncontaminated hardwood, including sawdust and woody plants, to one or more of the se listed processes for obtaining fractions which have the desired flavour potential.

References:

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