

## Food Additives and Snacks

An 'additive' is a type of ingredient which is intentionally added to a food for a specific technological purpose. For example, to enhance the texture or appearance of a food, or perhaps to act as a preservative by preventing the growth of micro-organisms.

Whilst these types of ingredients would not normally be consumed as foods in their own right, many are actually derived from, or else are chemically identical to natural components found in everyday unprocessed foods, for example citric acid which can be derived from lemons.

### Additives and the law

Within Europe, use of food additives is very strictly regulated and is based upon the following principles:

1. There is a technological need for their use;
2. Their use does not mislead the consumer;

And most importantly

3. They present no health hazard to the consumer.

Before they can be applied, all food additives are evaluated for their safety by the European Food Safety Authority. Applications must be supported by sufficient evidence to demonstrate both their safety and their technological function (even once they have been approved, additives are subject to regular review).

Only additives which have passed all of these stringent requirements and which have been explicitly authorised in legislation may be used. Limits are often set to restrict the amount that can be used within a particular foodstuff, but where there is no specific limit set, there is still a legal obligation for the manufacturer to apply good manufacturing practice to ensure that their use is minimised.

### Use of additives in savoury snacks

No food manufacturer wants to put costly additive ingredients into their products unless they are absolutely necessary, so the additives used in modern food processing all have a crucial role to play.

Without additives, many everyday and popular foods would simply cease to exist. Some foods would suffer from a short shelf-life leading to significant wastage, whilst other foods might suffer from defects in appearance, texture or taste.

The savoury snack sector is no exception, we do use and we do require additives in some products. However, over the recent years many European manufacturers have responded to increasing consumer demands for additive free and additive-reduced products.

The savoury snacks industry uses additives responsibly; only where specific technical functionality is required and only at the minimum level necessary to achieve the desired effect.

### **Labelling of additives**

Where additives are present in a food they are always listed separately within the ingredients list to help consumers make informed choices.

Additives that are accepted as safe throughout Europe are designated with an E-number.

These E-numbers are simply designed to help inform consumers about the food content, without having to resort to potentially long and confusing chemical names.

Some commonly used additives that you might see in ingredients lists include:

E162 Betanin (a natural red colouring derived from beetroot)

E160(c) paprika extract (from red peppers)

E300 L-ascorbic acid (vitamin C)

E308 gamma-tocopherol (vitamin E)

E101 riboflavin (vitamin B2)

E412 guar gum (a naturally occurring plant fibre)

E440 pectin (a setting agent derived from fruits)

E260 acetic acid (vinegar)

### **Which types of additives might be used within snacks?**

#### **Emulsifiers and stabilisers**

These are mainly plant-derived gels and gums which are used to bind ingredients together, giving some snacks and snack ingredients specific textural properties.

#### **Colours**

Colours are sometimes used to restore or improve the appearance of snacks. There are many colours such as annatto and carotenoids which are derived from natural plant materials; in fact synthetic colours are very rarely used in savoury snacks.

#### **Acids and Flavour enhancers**

Snacks sometimes use acids within their flavours. Many of these acids are derived from or else are identical to acids found naturally within foods. These include lactic acid (which is found naturally in milk), citric acid (found in lemons), malic acid (found in apples), tartaric acid (found in grapes), and acetic acid (found in vinegar).

You may also see that flavour enhancers such as glutamates are sometimes used in snacks. Glutamates in various different forms are also naturally found at very high levels in foods such as tomatoes, mushrooms, cheese, and anchovies.

## **Preservatives and Antioxidants**

These types of additives help to keep food fresh for longer by preventing the growth of microorganisms or oxidative breakdown of the food components. This helps to reduce wastage by protecting the product for longer and also the quality of the food. They also preserve the vitamins in foods from the harmful effects of oxidation.

Some antioxidants are actually vitamins themselves, such as L-ascorbic acid (otherwise known as vitamin C), or alphanolophenol (otherwise known as vitamin E).

Improvements in packaging protection have enabled the snack industry to significantly reduce or eliminate the use of anti-oxidants and preservatives.