FAQs

1: What are the Food Additive?

Any substance a food producer intentionally adds to a food for a specific purpose. Producers use around 3,000 additives to preserve and improve foods

- Food additives are substances added to products to perform specific technological functions. These functions include preserving, i.e. increasing shelf-life or inhibiting the growth of pathogens, or adding colouring and flavouring to food for interest and variety. Added to food to preserve flavor or enhance its taste and appearance. Some additives have been used for centuries; for example, preserving food by pickling (with vinegar), salting, as with bacon, preserving sweets or using sulfur dioxide as with wines.
- There are over 300 permitted additives that can be used in the UK. Flavourings are not included in this figure, as there are over 3,000 flavouring components in UK use, in many different combinations. International organisations provide advice on the safety of flavourings.

2: Write notes on Types of additives

Additives may be:

- Natural found naturally, such as extracts from beetroot juice (E 162), used as a colouring agent;
- **Manmade versions** synthetic identical copies of substances found naturally, such as benzoic acid (E210), used as a preservative;
- Artificial produced synthetically and not found naturally, such as nisin (E234), used as a preservative in some dairy products and in semolina and tapioca

3: Mention the importance of antioxidents?

Antioxidants: Antioxidants reduce the oxidative deterioration that leads to rancidity, loss of flavour, colour and nutritive value of foodstuffs. Fats, oils, flavouring substances, vitamins and colours can all oxidise spontaneously with oxygen when exposed to air.

1. Prevent food containing fat or oil from going rancid due to oxidation, i.e. developing an unpleasant odour or flavour;

2. Prevent the browning of cut fruit, vegetables and fruit juices (and so increase shelf life and appearance).

For example, vitamin C, also known as ascorbic acid, or E 300, is one of the most widely used antioxidants.

4:Colouring Foodstuffs were added to the Food.

Colours:

Colours are used to enhance the appearance and visual properties of foods. The use of colours controversial, because some of the most brightly coloured products are those aimed at children. **Colouring Foodstuffs:**

The term 'colouring foodstuffs' has been adopted for colourings that are derived from recognised foods and processed in such a way that the essential characteristics of the food from which they have been derived are maintained.

- Restore colour lost during processing or storage, e.g. marrowfat peas;
- Ensure that each batch produced is identical in appearance or does not appear 'off';
- Reinforces colour already in foods, e.g. enhance the yellowness of a custard;
- Give colour to foods which otherwise would be colourless (e.g. soft drinks) and so make them more attractive.

Certain combinations of the following artificial food colours:

sunset yellow (E110),

quinoline yellow (E104),

carmoisine (E122),

5: Write notes on Sweeteners and what are Preservatives:

Sweeteners and Preservatives:

Sweeteners=Sweeteners perform an obvious function. They come in two basic types – "bulk" and "intense", and are permitted in foods that are either energy-reduced or have no added sugar. They are also sold direct to consumers as "table-top" sweeteners – well-known to dieters and diabetics. **Sweeteners include:**

•Intense sweeteners, e.g. saccharin, have a sweetness many times that of sugar and therefore are used in small amounts, e.g. in diet foods, soft drinks, sweetening tablets.

• Bulk sweeteners, e.g. sorbitol, have a similar sweetness to sugar and are used at similar levels.

Preservatives:

Preservatives are probably the single most important class of additives, as they play an important role in the safety of the food supply. Preservatives are used in processed meats for food safety, shelf life and food technology reasons.

6: What are, Emulsifiers, stabilisers, gelling agents and thickeners ?

The purpose of emulsifiers and stabilisers is to facilitate the mixing together of ingredients that normally would not mix, namely fat and water. This mixing of the aqueous and lipid phases is then maintained by stabilisers Emulsifiers help mix ingredients together that would normally separate, e.g. Lecithins (E322). Stabilisers prevent ingredients from separating again, e.g. locust bean gum (E410).

Emulsifers and stabilisers give food a consistent texture, e.g. they can be found in low-fat spreads. Gelling agents are used to change the consistency of a food, e.g. pectin (E440), which is used to make jam.

7: Mention the difference between **Direct food additives and Indirect food additives?**

Direct food additives

They are the food additives added to a food for a specific purpose in that food, such as:

- To provide nutrition
- To maintain product quality and freshness
- To aid in the processing and preparation of foods
- To make foods appealing
- Indirect food additives

They are the food additives that become part of the food in traces due to its packaging, storage or other handling. They are not used or placed in the food on purpose

- Government guidelines mostly necessitate that all food ingredients, including direct additives should be listed on the package label by their common names in order of weight.
- Each food additive used is assigned a unique number, called the "E numbers", which are basically used in Europe for all approved additives.

8: Write notes on stabilizer? What are commonly used stabilizer?

In chemistry a stabilizer is a chemical which tends to inhibit the reaction between two or more other chemicals. [citation needed] It can be thought of as the antonym to a catalyst. The term can also refer to a chemical that inhibits separation of suspensions, emulsions, and foams.

Corn syrup (mostly glucose) ,Sodium caseinate ,Calcium caseinate ,Polyethylene glycol (PEG) Polypropylene glycol (PPG) ,Lecithin ,Hydroxymethylcellulose ,Sodium Carboxymethylcellulose Xylenesulfonates ,Agar ,Gelatin ,Pectin ,Alginate & proplylene glycol alginate, Starch ,Modified Starch ,Carrageenan ,uar bean gum ,locust bean gum ,Gum Acacia ,Gum Arabic ,Brominated vegetable oil ,Xanthan Gum ,Gum Tragacanth ,Ghatti ,Karaya ,Furcelleran.

9: Commonly used preservatives and their code numbers?

PRESERVATIVES

Preservatives are used to improve the safety of food by controlling the growth of mould, bacteria and yeast that cause food to deteriorate.

CODE NUMBER ADDITIVE NAME DETAILS

200 Sorbic acid:

Sorbic acid and its salts are naturally occurring substances and they are among the most important food preservatives for industries. Sorbic acid is effective over a wide range of foods, ie beverages, dairy products and baked goods and it adds no taste or flavour.

201 Sodium sorbate

202 Potassium sorbate

203 Calcium sorbate

280 Propionic acid

The propionates are examples of naturally occurring preservatives. They work best in more alkaline conditions of bakery products and may be used to delay green mould growth on bread.

281 Sodium propionate

282 Calcium propionate

283 Potassium propionate

10:Acidity regulators and their code numbers?

Acidity regulators, are also known as pH control agents, added to maintain pH. They can be neutralizing agents or buffering agents. They are indicated by their E.number, such as E260 (acetic acid), or food acid, commonly used acidity regulators are citric, acetic and lactic acids.

CODE NUMBER ADDITIVE NAME DETAILS

260 Acetic acid, glacial 0.8 (dilute)

0.6–1.5 (vinegar)

262 Sodium acetate or sodium diacetate0.125-0.4

263 Calcium acetate 0.125-0.4

524 Sodium hydroxide Caustic soda – strong alkali used as acidity regulator in bakery products

11:Emulsifiers ,Code number additive name details generaly used in food?

Emulsifiers are used to ensure that mixtures of oil and water (emulsions) stay mixed together. Emulsifiers, stabilizers, and related compounds are also used in the preparation of cosmetics, lotions, and certain pharmaceuticals, in addition to this, emulsifiers can also aerate, increase product softness, reduce staling.

Code number additive name details

322 Lecithin Natural emulsifier found in egg yolk. Used in range of baked goods including doughnuts and cakes to control flow and viscosity.

471 Mono- and di-glycerides of fatty acids.

Used as an emulsifier in fat emulsions; can be added as a dispersion in water. In yeast-raised foods it improves softness and shelf life.

- <u>Acesulfame K</u> (Artificial sweetener, used in chewing gum)
- <u>Aspartame</u> Artificial sweetener
- <u>Azodicarbonamide</u> Bleaching agent in flour
- Guar Gum Stabilizer for ice cream and soups
- <u>MSG</u> Flavor enhancer in soups, Chinese foods
- <u>Saccarin</u> Artificial sweetener
- <u>Sodium citrate</u> pH controller; meat curer
- <u>Sorbitol</u> Nutritive sweetener

Tartaric Acid - pH controller used in soft drinks