Hidden Ingredients in Halal Foods

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Outline
Halal Food Additives: Control

- What are food additives?
- Sources of food additives
- Market of food additives
- Why use food additives?
- Are All food additives are Halal?
- Examples of food additives
- Control of Halal food additives

What are Food Additives?

Food additive is defined by the Food and Drug Administration (FDA) as any substance used to provide a technical effect in foods
What are Food Additives?

The use of food additives has become more prominent in recent years, due to the increased production of prepared, processed, and convenience foods.

What are Food Additives?

Food additives are added to food to preserve flavor, improve its taste or nutrition value, appearance, freshness and safety.

What are Food Additives?

There are approximately 3000 food additives in different groups, that are being used by the food industry.
Global Food Additives Sector Hits $24.5 Billion

Global food additives market to exceed 33 B by 2015
Are All Food Additives are Synthetic?

Additives may be Natural, Nature identical or Synthetic

**Natural additives**
are substances found naturally in a foodstuff and are extracted from this food to be used in another, for example beet root juice with its bright purple color can be used to color other foods such as sweets.

**Nature identical additives**
are manmade copies of substances that occur naturally. For example, benzoic acid is a substance that is found in nature and is made synthetically and used as a preservative.

**Artificial additives**
are substances made synthetically and are not found naturally. An example is azodicarbonamide, a flour improver that is used to help bread dough hold together.
Sources of Food Additives?

Some consumers may not be able to know the sources of these additive and have no idea why these additives are in the foods?

Why Use Food Additives?

Food additives are added to foods to perform a specific function
- Preserving the food
- Increasing the shelf life
- Slowing the growth of microorganisms
- Changing the appearance or taste
- Help in processing, binding, etc.

Why Use Food Additives?

Some food companies use additives to make food appear fresher and more colorful to attract customers.
Turn Pork to Beef? China Seeks Strict Ban on Additives

GUANGZHOU: The State Council called for stricter regulation of the use of food additives on Thursday in response to a series of food safety problems. One of which led to the recent deaths of 19 tons of contaminated pork in Guangdong province.

The announcement required the Ministry of Health to review a list of illegal food additives and make it public by the end of this year.

Meanwhile, the ministry will make a list of legal additives. Persons or companies who use such additives in their products or they will face

Why Use Food Additives?

Why Use Food Additives?

Halal Food Additives: Control

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Halal Food Additives: Control
Are Food Additives Safe?

Some food additives are safe. Some food additives are banned due to the safety problem such as causing cancer and obesity etc.

Are Food Additives Safe?

- With the increasing use of processed foods
- There has been a great increase in the use of food additives of varying levels of safety
- This has led to legislation in many countries regulating their use

Food Additives

Generally Safe

- Annatto
- Beet juice
- Beet powder
- Beta-carotene
- Or carotene
- Citric acid
- Erythorbic acid
- Gelatin
- Guar Gum
- Herbs and spices
- Lactic acid
- Lecithin
- Minerals
- Natural oils/extracts (vanilla extract)
- Natural sweeteners
- Pectin
- Sea salt
- Sodium
- Bicarbonate (a.k.a. baking soda)
- Sorbic acid
- Vegetable glycerin
- Vitamins
- Yeast
Food Additives in E.U.

In the European Union food additives have number codes called E-numbers.

Are All Food Additives Halal?

Some food additives are Halal
Some food additives are NOT
Some food additives are Doubtful

Examples of Halal Food Additives

- Citric acid
- Xanthan gum
Examples of Doubtful Food Additive

- What's in your morning bagel, croissants, pita bread or rolls?
- It may contain human hair or duck feathers.
- It's your guess as to which?
- The substance, called L-cysteine or cystine,
- Used as a dough conditioner to produce a specific consistency.

Examples of Doubtful Food Additive

Human Hair Protein... in Commercial Breads... omg!
Examples of Doubtful Food Additive

Commonly L-Cysteine is made from human hair and duck feathers.

Examples of Doubtful Food Additive

While artificial cysteine is available, it is cost prohibitive and mostly used to create halal products.

Additives in Cosmetics

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Hidden Food additives

Clariifying agent

Table 12.1 A sampling of major sources of enzymes

Source Type Activity Enzyme
Bacteria Bacillus Protease Meat, beverages
Bacteria Streptomyces Humase Invertase, starch
Bacteria Aspergillus Protease Chymosin
Fungi Mucor Lipase Chymosin
Vegetative Saccharomyces Invertase
Vegetative Kluyveromyces Chymosin/rennin
Plant Barley malt Amylase Baking, sugar
Plant Yeast Lipase, protease Baking, beverages
Animal Bovine liver Caldesone Beverages, dairy
Animal Bovine pancreas Lipase, rennin Baking, sauces
Animal Pig kidney Chymosin Baking, sauces
Hidden Food additives

- Bleaching compounds

Hidden Food additives

- Food Grade Lubricants

C.I. FORMULA 6-77
FOOD EQUIPMENT LUBRICANT

Mian Nadeem Riaz, Presented at the Halal Food Workshop- Lahore, June 2012
Hidden Food additives

- Edible Coating

- Packaging Material
  - In many cases, stearate from animals might be used in the production of plastic bags and containers.
  - Metal cans and drums can be contaminated with animal fats.
  - Waxes and coatings applied to plastic, paper and styrofoam cups and plates might be from animal origin.

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ScienceDaily

Hidden Phosphorus Food Additives Dangerous To Kidney Disease Patients

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Mian Nadeem Riaz, Presented at the Halal Food Workshop- Lahore, June 2012
Hidden Food additives
Halal Food Additives Control

Label show yeast extract and natural flavor.
- Both are legal terms.
- Yeast extract could be from brewery waste and could contain flavor enhancers.

Hidden Food additives
Halal Food Additives Control

- This label show flavor enhancer's e-number.
- But it contain herb extract and yeast extract.
- Both extract could contain several flavor enhancers.
Hidden Food additives

- This label shows natural flavors, yeast extract, spice extract.
- What is the source of these ingredients?

What is the Solution

- To make sure food is Halal, all the additives including:
  - Releasing agent
  - Antifoaming agent
  - Filtering & clarifying agent
  - Bleaching compounds
  - Flavor enhancers
  - Packaging material
  - Greases and lubricants
  - Need to be Halal certified

Key message

- Several food additives and other processing aid can pose an issue for Halal
- Halal certification for all these ingredients may be the only solution
- We all need to work on these issues so all the Muslims make sure they are eating Halal food