

# MEAT MATTERS

## COMMON INGREDIENTS IN PROCESSED MEAT PRODUCTS

### Helpful Links

#### Food and Drug Administration

Center for Food Safety and Applied Nutrition

[www.cfsan.fda.gov](http://www.cfsan.fda.gov)

#### U.S. Department of Agriculture

Food Safety and Inspection Service

[www.fsis.usda.gov](http://www.fsis.usda.gov)

1-888-MPHotline (consumer inquiries)

#### Code of Federal Regulations – Title 9 Section 424.21

“Use of food Ingredients and sources of radiation”.

<http://www.gpoaccess.gov/cfr/retrieve.html>

#### U.S. Department of Agriculture

Food Safety and Inspection Service

Directive 7120.1

Safe and Suitable Ingredients Used in the Production of  
Meat and Poultry Products (see latest revision)

[http://www.fsis.usda.gov/Regulations\\_&\\_Policies/7000\\_Series-Processed\\_Products/index.asp](http://www.fsis.usda.gov/Regulations_&_Policies/7000_Series-Processed_Products/index.asp)



1150 Connecticut Avenue, NW, 12<sup>th</sup> Floor  
Washington, DC 20036  
p. 202.587.4200 | f. 202.587.4300  
[www.meatami.com](http://www.meatami.com)  
[www.meatmattersinfo.org](http://www.meatmattersinfo.org)

# COMMON INGREDIENTS IN PROCESSED MEAT PRODUCTS

Processed and cured meats are among America's most popular meat and poultry products. From hot dogs, to smoked turkey, pastrami, hams and salamis, processed and cured meats offer excellent nutrition and unique taste. But sometimes the ingredients can be confusing to those unfamiliar with how these products are made.

Many different ingredients, including spices, flavorings, preservatives, binders and additives, are used to give these varied meat products their distinctive taste and texture. In addition to the cuts of meat and poultry used to make these products, other ingredients can add flavor, prevent quality loss during shelf life and delay spoilage.

Any non-meat ingredient included in a meat product must be approved by the Food and Drug Administration (FDA) and accepted by the U.S. Department of Agriculture, which regulates and inspects meat and poultry products. Approximately 2,800 food additives have been FDA-approved after a thorough review of their safety. Only a fraction of approved additives are commonly used in processed products. The additives that are used perform important functions like "curing" meat products and preventing bacterial growth.

All ingredients in processed products must be clearly detailed on the product ingredient statements, from the greatest amount to the least. Following is a guide to ingredients commonly found in processed and cured meat products.

Processed and cured meats have unique characteristics and flavor profiles. A host of ingredients are used to give them their distinct tastes:

**Ascorbic acid/Sodium ascorbate** – also known as Vitamin C, prevents oxidation that causes color change and spoilage. Ascorbic acid is commonly added to cured meats when nitrite is also used.

**BHA, BHT** – antioxidants that protect natural nutrients like Vitamin A and prevent the fat in meat from developing off flavors and odors, commonly referred

to as being "rancid." Rancidity develops when fats come in contact with oxygen. BHA and BHT also keep snack foods, cereals and crackers fresh during storage.

**Carrageenan** – a gelatin-like extract of red seaweed that is sometimes used as a binder or a fat substitute.

**Dextrose** – a sugar sweetener that enhances flavor and browning during cooking.

**Gelatin** – derived from collagen, gelatin is used as a thickener and in some canned ham and jellied meat products.

**Hydrolyzed vegetable protein** – a protein produced by boiling and breaking down cereals or legumes, such as soy, corn, or wheat, in hydrochloric acid into their component amino acids. Hydrolyzed vegetable protein is a flavor enhancer.

**Hydrolyzed milk protein** – a flavor enhancer derived from milk protein that has been broken into its component amino acids.

**Lactate/diacetate** – salts derived from organic acids that inhibit growth of bacteria and enhance safety. Lactate is made in our bodies as part of normal metabolism. As an ingredient, it is manufactured from corn by fermentation. Diacetate is a form of vinegar which is also manufactured by fermentation.

**Modified food starch** – a starch that has been separated from its protein source. Modified food starch is used as a thickener.

**Monosodium glutamate (MSG)** – a flavor enhancer that comes from an amino acid called glutamic acid. It must be declared as MSG on meat and poultry labels.

**Phosphates** – maintain moisture in products to enhance juiciness and tenderness and prevent off flavors from developing in fat.

**Salt** – mined from the earth or obtained from sea water, salt is an essential ingredient in processed and cured meat products that adds flavor, texture, protects against bacteria and extends shelf life. Before refrigeration, salting of meat was essential in preventing spoilage.

**Smoke flavoring** – a condensed form of smoke, smoke flavoring is an alternative to natural wood smoking. Smoke flavoring gives products a smoky taste without a grill.

**Sodium erythorbate** – derived from Vitamin C, erythorbate is an antioxidant that maintains the color of processed meats.

In contrast to a popular urban legend, erythorbate is NOT made from earthworms, though the U.S. Department of Agriculture reports receiving many inquiries about erythorbate's source. It is speculated that the similarity in the spelling of the words "erythorbate" and "earthworms" has led to this confusion.

**Sodium nitrite** – a curing ingredient and anti-oxidant that gives cured meats their characteristic pink color and their taste. While the closely related "sodium nitrate" was commonly used in the decades past, today, nitrite is used almost exclusively to cure meats. Nitrite used in cured meats is extremely effective in preventing the deadly disease botulism.

Interestingly, although consumers commonly think cured meats are the major source of nitrite in the diet, in reality, 93 percent of daily nitrite intake comes from vegetables and from saliva. Sodium nitrite is part of the normal nitrogen cycle in humans and the body actually produces and recirculates nitrate, which is converted to nitrite in our saliva. Scientists now think that humans may make nitrite as part of its bodily defenses.

In some cases, processed products labeled "uncured" contain celery juice or other nitrate-containing ingredients as a substitute for sodium nitrite.

**Spices** – a variety of plant-derived spices are commonly added to processed meat products. The most common spices used include red, white and black pepper, garlic, coriander, cinnamon, cumin, nutmeg and allspice.

**Sugar and corn syrup** – sweeteners that add flavor and promote browning.

**Tocopherol** – a form of Vitamin E that prevents fat in meat and poultry from becoming rancid.

**Xanthan gum** – derived from corn sugar, xanthan gum is a thickening agent used in some products. It can be used as an alternative to gelatin and provides a "fat feel" in low-fat and fat-free products.

**Whey** – a protein that remains after milk is made into cheese. Whey can be used as a "binder" in meat products to hold them together. Whey has the highest "biological value" of any known protein – even higher than egg whites.