68 Dog Food Ingredients To Die For!

28 Deadly Ingredients
15 Ingredients OK in Moderation Only
25 Harmless but USELESS Ingredients

By Dog Food SECRETS

Legal Stuff

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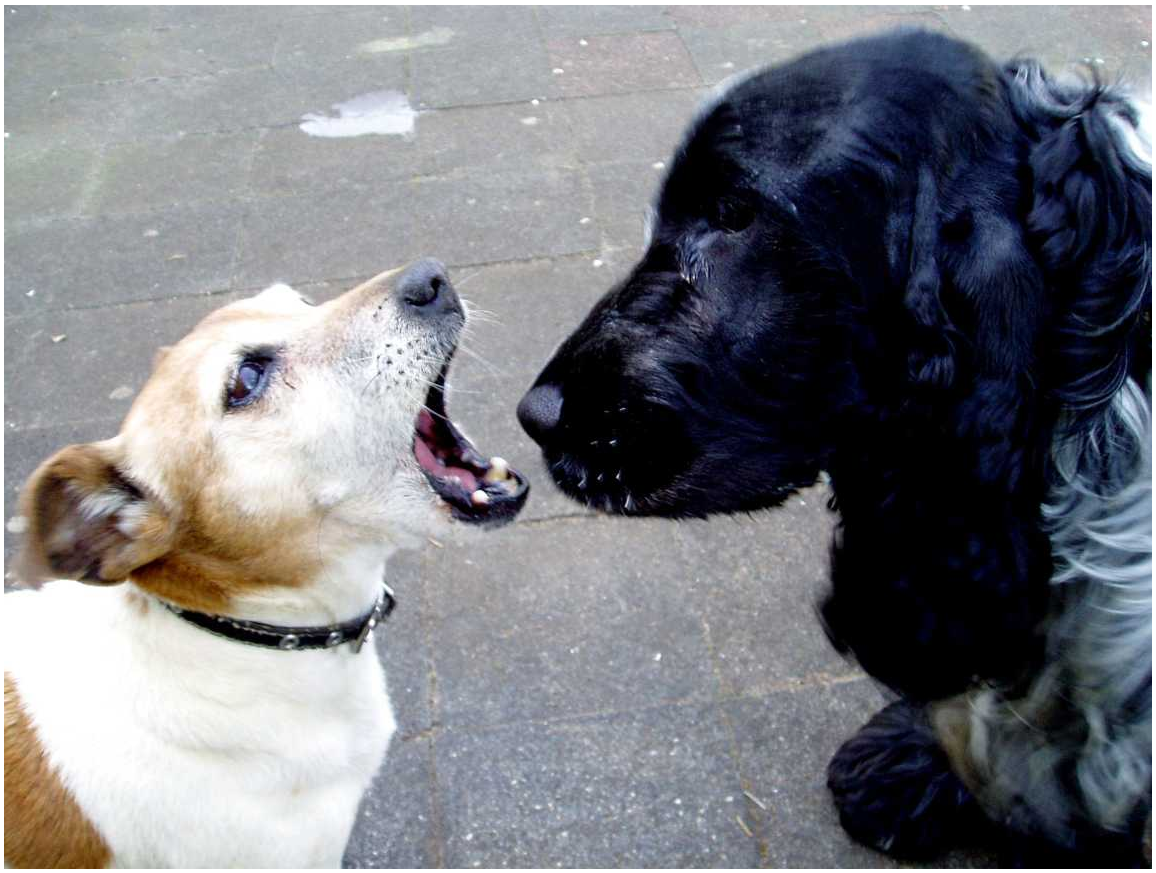
The author of this book is not a trained dog health professional. It is the reader's responsibility to consult with a licensed, practicing Doctor of Veterinarian Medicine (DVM) (or equivalent in your country) before making any changes to your method of feeding, grooming or any other matter of dog care for any dogs for which you have any responsibility or contribute, in any way, to their care.

Chapter 1 - Dog Food Ingredients 101



“Mmm… I can see some decay in your lower canines. I suggest you cut down on commercial dog food”

Why Commercial Dog Food Companies Don't Like Us

At the risk of repeating ourselves, we must disclose our predilection for good home cooking from the outset. It is our unshakeable belief that our pets deserve the very best, and it follows that the very best can only come from our kitchens.

While the relaxed regulations on dog food labeling might make for a good mystery tale, nutritionally speaking, a homemade diet allows for flexibility and purity. It gives us total control over our pets' nutritional needs. It is also the only way that we can be assured that all ingredients are of the highest quality, and add up to a balanced and toxin-free diet.

Commercial-brand dog foods are not beholden to the same FDA labeling requirements as people foods. Federal standards are governed by the FDA's Center for Veterinary Medicine (CVM). Additionally, some states also enforce their own labeling regulations, many adopting model pet food regulations established by the Association of American Feed Control Officials (AAFCO). Still, the information provided tends to be vague and often outright misleading.

We would be pleased if our disposition and yours would converge in the end. But, failing that, we suspect that we can clear our collective conscience by providing the real lowdown on what you are feeding your dog. In *Dog Food SECRETS* ™ we provide the facts to help you decipher dog food labeling schemes. The following pages offer a detailed analysis of common dog food ingredients, categorized and characterized in our usual concise fashion.

Quite possibly, the information provided here will convince you to eliminate commercial dog foods from your dog's repertoire. But, if not, at the very least you can shop discerningly and with confidence.

The Who's Who Of Unwanted Ingredients - in Brief

Ingredient Name	Ingredients to Avoid ☠	Ingredients Acceptable in Moderation	Ingredients that are OK, but Unnecessary
Additives & Fillers			
Glyceryl Monostearate	☠		
Phosphoric Acid			✓
Propylene Glycol	☠		
Wheat Gluten			✓
Artificial Colors			
Blue Dye #2	☠		
Red Dye #40	☠		
Titanium Dioxide			✓
Yellow Dye #5	☠		
Yellow Dye #6	☠		
Artificial Flavors			
Animal Digest	☠		
Flavor	☠		
Glandular Meal	☠		
Preservatives			
BHA	☠		
BHT	☠		
Ethoxyquin	☠		
Propyl Gallate	☠		
Fruits & Vegetables			
Apple Pomace		✓	
Citrus Pulp		✓	
Dried Beet Pulp		✓	
Grape Pomace	☠		
Carbohydrates			
Brewer's Rice			✓
Cereal Food Fines		✓	
Feeding Oat Meal			✓

Ingredient Name	Ingredients to Avoid ☠	Ingredients Acceptable in Moderation	Ingredients that are OK, but Unnecessary
Carbohydrates (Cont.)			
Cracked Pearl Barley or Barley Flour			✓
Grain Fermentation Solubles			✓
Ground Whole Grain Sorghum		✓	
Potato Product			✓
Soy Flour			✓
Fats			
Animal Fat	☠		
Beef Tallow		✓	
Fish Oil	☠		
Lard		✓	
Poultry Fat	☠		
Vegetable Oil			✓
Fiber			
Cellulose			✓
Corn Bran			✓
Corn Cellulose			✓
Oat Hulls			✓
Peanut Hulls			✓
Rice Hulls			✓
Soybean Mill Run			✓
Wheat Mill Run			✓
Proteins			
Beef & Bone Meal	☠		
Blood Meal	☠		
Chicken Byproduct Meal	☠		
Corn Germ Meal			✓

Ingredient Name	Ingredients to Avoid ☠	Ingredients Acceptable in Moderation	Ingredients that are OK, but Unnecessary
Proteins (Cont.)			
Corn Gluten Meal			✓
Dried Egg Product	☠		
Fish Meal	☠		
Ground Corn		✓	
Liver Meal	☠		
Meat & Bone Meal	☠		
Pork & Bone Meal	☠		
Poultry Byproduct Meal	☠		
Poultry Meal	☠		
Rice Gluten Meal		✓	
Soybean Meal		✓	
Supplements			
Bone Phosphate			✓
Salt			✓
Mineral Oil			✓
Yeast Culture			✓
Sweeteners			
Cane Molasses		✓	
Corn Syrup		✓	
Fructose		✓	
Sorbitol		✓	
Sugar		✓	
Vitamins			
Dl-Alpha Tocopherol Acetate			✓
Menadione Sodium Bisulfate	☠		

Chapter 2 - Ingredients To Avoid

“Uh, uh… I’m not coming a step closer until you promise to serve me a home-cooked meal for dinner”

28 Ways to Die

The ingredients discussed in this chapter are those that you want to avoid altogether. They either have been tested and proven to be harmful, are suspected of being harmful, or they fall into the "mystery" classification. Regarding the latter, we live by the credo, "what you don't know *can* hurt you." In any case, as you examine dog food labels, know that you'd be wise to move onto the next product if you find any of these ingredients present.

Glyceryl Mo nostearate

Glyceryl Monostearate is a wax-like, solid emollient and emulsifier derived from natural stearic acid and glycerin. It is a humectant which absorbs moisture from the air to keep hair and skin moist, and is used as a diluting agent in cosmetics -- most notably in making lotion, diaper rash ointment, hair coloring solutions and conditioners and cream rinses. Sounds delicious, doesn't it?

The National Library of Medicine databases lists "no information available" at this time regarding health studies of this food additive from the Hazardous Substances Databank (HSDB).

Toxnet, the Toxicology Data Network includes a study of the biological activity of the food additive glyceryl monostearate (GMS), tested in rats in concentrations up to 14%, conducted in 1969 and posted in 1995. "Deleterious effects of the GMS diet included poor digestibility, fecal elimination of GMS, loss of body weight, and retardation of growth."

GMS can contain up to 200 parts per million (ppm) BHT (a controversial preservative that will be discussed in greater detail later), and other chemical impurities (glyceryl distearate, glyceryl tristearate and free glyceryl).

Due to the uncertainty, and potential toxicity of chemical additives, we designate this ingredient as one that should be avoided (☠).

Propylene Glycol

Propylene Glycol is a manufactured, organic compound, usually embodied as a tasteless, odorless and colorless oily liquid. Per Wikipedia, this additive is used:

- As a moisturizer in medicines, cosmetics, food and tobacco products
- As a medical and sexual lubricant
- As a flavoring agent in bitters
- As a solvent for food coloring and flavoring
- As a humectant food additive
- As a carrier in fragrance oils
- As a "food grade" antifreeze (???)
- To make artificial smoke in smoke machines for training firefighters and for theatrical productions
- In hand sanitizers, antibacterial lotions and saline solutions
- As a main ingredient in baby wipes, bubble baths and shampoos
- As the primary ingredient for the "paint" in a paintball
- As a base ingredient in aircraft deicing fluids and some automobile antifreezes
- In cryonics
- As a working fluid in hydraulic presses
- To regulate humidity in a humidor
- As the killing and preserving agent in pitfall traps, to capture beetles

It is also used:

- As a tire sealant (e.g., Fix-A-Flat)
- As an air sanitizer
- In soap
- In soap scum removers (e.g., Tilex)

And, in a host of other household products, too numerous to list here.

Propylene Glycol has been deemed by the FDA to be "generally recognized as safe" for use in food, cosmetics and medicines.

The Hazardous Substances Databank has 296 listings related to this additive, including several case reports of propylene glycol intoxication, in varying degrees of seriousness, in small children. A

2002 report asserts, "Acute propylene glycol intoxication in a two-year-old toddler underlines the potentially serious toxicity in children of this chemical agent present as a diluent in many drugs and environmental products such as cosmetics, diapers, cleansing towels, despite a common consideration of safety and lack of toxicity."

In European countries, this additive is not approved as a general-purpose food grade product or direct food additive.

Since your pet will likely eat the same food daily for weeks, months, even years at a time, it would seem to be a no-brainer that dog foods containing propylene glycol should be avoided at all cost (☠).

Blue Dye #2

Food color that is used in the United States is either artificial or natural, with artificial food color being the most widely used. Each batch of artificial color that is produced as food color or for drug or cosmetic use in the United States must be submitted to the Food and Drug Administration for “certification” to insure that it meets the governments predefined standards. If it meets the standards, it is deemed a “Certified Color.”

Such dyes are referred to as FD&C Colors which means they can generally be used in Foods, Drugs, and Cosmetics, or D&C Colors which means they can be used in Drugs and Cosmetic, but not in foods.

There are only seven Certified Dyes that can be used as artificial food colorings in the United States:

- FD&C Red 3 — Pink Shade
- FD&C Red 40 — Red Shade
- FD&C Yellow 5 — Yellow Shade
- FD&C Yellow 6 — Orange Shade
- FD&C Blue 1 — Blue Shade
- FD&C Blue 2 — Dark Blue (Indigo) Shade
- FD&C Green 3 — Blue-Green Shade

Between the years 1918 and 1978, seventeen other dyes were either banned, delisted or removed from production. But the seven that are still in use are not free from concerns and controversies.

Natural colors also must be approved by the FDA for use in food, cosmetics and drugs, but they are not subject to batch certification. Beet, paprika , annatto, turmeric, titanium dioxide, caramel and cabbage are a few examples of natural colors.

In general, they are not as widely used as artificial colors because they are more expensive, less vibrant, have fewer shades, and are less concentrated. In addition, as compared to their artificial counterparts, natural dyes generally have a short shelf life before fading occurs.

Per Wikipedia, the American food industry uses 3000 tons of food color per year. In addition, Wikipedia asserts:

> While most consumers are aware that foods with bright, unnatural colors, like Froot Loops, are artificially colored, few people know that apparently 'natural' foods such as oranges are sometimes also dyed to mask natural variations in color. Most trust the regulations of their governments to keep any unsafe additives off the market, but there is a vigorous public debate about the safety of many food colorings. . . . A growing minority believes that the effects of colorings have not been well enough researched and consider their risk an unnecessary risk.
>
> The FDA receives compensation for every pound of food dye it certifies (not inspects), which many see as a conflict of interest in regard to the safety of these dyes.

FD&C Blue 2 is principally used in pet foods, but is also widely used in candies, confections, beverages, dessert powders and bakery goods. It has a more limited use in ice creams, sherbets, dairy products and cereals.

In 1985, Blue 2 was the subject of an FDA Administrative hearing as a result of the Public Citizen Health Research Group's objections to its designation as a Certified Color. Public Citizens demonstrated a "statistically significant increase in the number of brain tumors in animals fed Blue 2." The FDA concluded there was a

"reasonable certainty of no harm." Perhaps most distressing: in 1984, the FDA certified 101,223 pounds of Blue Dye #2. In 2005, twenty years *after* the effort to ban it, 642,246 pounds were certified. *That is an increase in use of more than 500%!*

The Public Citizen, incidentally, is a national, nonprofit consumer advocacy organization founded by Ralph Nader in 1971, "to represent consumer interests in Congress, the executive branch and their courts."

Because of the uncertainty and the serious nature of its health risks, combined with the fact that it has absolutely no nutritional value, we deem Blue Dye #2 as an ingredient to avoid at all cost (☠).

Red Dye #40

Red Dye #40 is by far the most used coloring additive. The FDA certified 6,541,368 pounds in 2005. It is used primarily in beverages, candy, desserts and pet food.

Red Dye #40 is also one of the most tested food dyes, but much of the testing has been dismissed as flawed and inconclusive. Among the toxicity findings are earlier lymphomas. Some references allude to a report in which an FDA review committee, "acknowledged problems," with Red Dye #40, but concluded evidence of harm was, "not consistent or substantial." As of this writing, though, we have been unable to locate supporting evidence for that beyond the rumor mill.

An Internet search unearths a plethora of anecdotal evidence from parents who eradicated various emotional and behavioral problems with their young children (ADHD, hyperactivity, OCD, etc.), simply by systematically eliminating Red Dye #40 from their diets. While we can find no scientific studies which further explore this link, the stories themselves are certainly enough to make us think twice about introducing this entirely unnecessary toxin into our dog's (or anyone's!) diets.

And, equally bothersome, while the US FDA doesn't consider the problems, "substantial," Red Dye #40 is banned in the European Union (EU). All of this is enough for us to consider this an ingredient that should be avoided at all cost (☠).

Yellow Dye #5

Yellow Dye #5 is the second most used coloring additive, with 4,231,420 pounds certified by the FDA in 2005. Its primary uses include pet food, beverages and baked goods.

Otherwise known as Tartrazine, this lemon yellow color additive appears to cause the most allergic and intolerance reactions, particularly among asthmatics and those with an aspirin intolerance. Reactions include migraines, blurred vision, itching, rhinitis (chronic or acute irritation and inflammation of the nose), hives and purple skin patches.

Per the Public Citizen Health Research Group, the toxicity findings for Yellow Dye #5 comprise thyroid tumors, lymphocytic lymphomas and chromosomal damage, along with the previously mentioned allergies. Also disturbing is that Yellow Dye #5 is currently banned in Norway.

For us, it is an easy decision to place this ingredient directly into the category To Avoid At All Cost (☠).

Yellow Dye #6

This sunset yellow dye lags only slightly behind Yellow Dye #5 in annual use, with 4,156,408 pounds certified by the FDA in 2005. It is used mainly in beverages (including, oddly enough, *hot chocolate*), candy, desserts and sausage.

Like its lemon yellow cohort, Yellow Dye #6 is known to cause allergic or intolerance reactions, particularly among those with an aspirin intolerance. Reactions include gastric upset, vomiting, hives and skin swelling.

Yellow Dye #6 is one of the colorants that the Hyperactive Children's Support Group (HACSG) recommends eliminating from the diet of children. The HACSG is a registered charity which has been successfully helping children labeled ADHD and hyperactive for over 25 years. The HACSG is Britain's leading proponent of a dietary approach to the problem of hyperactivity.

The Public Citizen Health Research Group lists allergies, kidney tumors and chromosomal damage among the toxicity findings for Yellow Dye #6.

This coloring additive is currently banned in both Norway and Sweden.

For us, all of this amounts to enough said (☠).

Animal Digest

Animal Digest is a powder or liquid artificial flavoring construed from clean, under-composed animal tissue. Per the AAFCO, the animal tissues must be free of hair, horns, teeth, hooves and feathers, "except in such trace amounts as might occur unavoidably in good factory practice and shall be suitable for animal feed. If it bears a name descriptive of its kind or flavor(s), it must correspond thereto."

In essence, animal digest is a cooked-down broth made from unspecified parts of unspecified animals. Because of the vague descriptors used: *animal* digest, *poultry* digest, *meat* digest, etc., any kind of animals can be used, including the so-called "4-D animals" (dead, diseased, disabled or dying). This can also mean goats, pigs, horses, rats, roadkill, euthanized animals, and restaurant and grocery refuse. There is no control or monitoring of quality or contamination.

We have made it a rule to avoid all ingredients that fall under this imprecise source umbrella. If it isn't clear where it came from and what it is made of, it will not be fed to our pet. In this case, it is especially easy to dismiss Animal (and other) Digests because its a completely unnecessary additive to quality food (☠).

Flavor

Flavor is a substance, such as an extract or spice that adds just that -- flavor -- to the product. The manufacturer may or may not provide specifics as to the source of flavoring, and whether it derives naturally or chemically.

Under the rules governing dog food labeling, the word "flavor" enjoys elusive status. The "flavor" rule itself does not require a specific percentage to be used, but a product, "must contain an amount sufficient to be able to be detected." In Beef Flavor Dog Food, the corresponding ingredient may well be beef, but is just as likely (if not more so) to be another substance that will give the characterized flavor -- such as beef meal, or beef by-products.

Wouldn't it be preferable (and far less complicated) to just feed your dog the beef? We know that we would just prefer to avoid dog foods that contain the ingredient Flavor, but we just can't ascertain for certain what it is (☠).

Glandular Meal

Glandular Meal is a source of liver flavor in dog foods that is obtained from the livers and other glands of various, unspecified animals.

In 1997, the FDA banned the use of Glandular Meal (among other materials) from livestock feed because they are from the parts of cows most likely to, "contain the proteins . . . that cause mad cow disease."

It strikes us as more than a little peculiar that this flavoring is banned for livestock, but not for pets. We opt to err on the side of caution with this mysterious ingredient (☠).

BHA

BHA is an acronym for Butylated Hydroxyanisole and it is an antioxidant. As such, oxygen reacts preferentially with BHA, rather than oxidizing fats or oils, thereby protecting them from spoilage. In addition to preserving foods, BHA, like its counterpart, BHT, is used to preserve fats and oils in cosmetics and pharmaceuticals. Both have been banned from human use in many countries. In the US, though, it is still permitted in pet foods. While for us, this would be enough said, studies actually have linked BHA and BHT with liver and kidney dysfunction, fetal abnormalities and metabolic stress (☠).

BHT

BHT, uncommonly known as is Butylated Hydroxytoluene, is also an antioxidant. It is also a suspected mutagen (an agent that modifies genetic infomation) and carcinogen (any substance or agent that promotes cancer).

Like BHA, it is banned for human use in many countries. In the US, it is banned from use specifically only in baby foods. Some food industries have independently eliminated it from their products, including McDonalds, as of 1986.

There are documented cases of people having difficulty metabolizing BHT, resulting in health and behavior changes. This is especially vexing when you consider that a dog will usually eat the same food, day after day, for years of his life. We can only speculate as to the health repercussions of this repeated dosage (☠).

Ethoxyquin

Ethoxyquin is a chemical preservative regulated by the FDA as a *pesticide* . It is also a suspected carcinogenic. While ethoxyquin cannot be used in human foods, it, too, continues to be used in many pet food brands.

Ethoxyquin has been found to promote kidney carcinogenesis and significantly increase the incidence of stomach tumors and enhanced bladder carcinogesis, according to several studies. Carcinogenesis (*KAR-sin-oh-JEN-eh-sis*) is, quite simply, the process by which normal cells turn into cancer cells. There are also reports linking ethoxyquin with allergic reactions, skin problems, major organ failure and behavior problems.

In 1997, the CVM made a request to manufacturers of ethoxyquin and the pet food industry to voluntarily lower ethoxyquin residue in pet foods to 75 parts per million (ppm), from the currently allowed amount of 150 ppm. To date, there is still no mandatory requirement to meet the voluntary request.

This is a controversial preservative because no conclusive, reliable research exists to prove *or* disprove its safety for use in pet foods. The FDA chooses to err on the side of big business. We opt to err on the side of caution (☠).

Propyl Gallate

Propyl Gallate is an antioxidant, and works much like BHA, BHT and Ethoxyquin to preserve foods, cosmetics, hair products, adhesives and lubricants.

Unlike the others, Propyl Gallate has not raised a firestorm of controversy surrounding its questionable safety. In fact, there is little documentation at all regarding its toxicity, safety, interactions, or chronic use in pet foods that may be eaten every day for the life of the animal. We did come across a few vague references linking it to liver disease and cancer, but with little substantiation.

On the plus side, dog food companies appear to be drifting away from the use of artificial preservatives in food. Under scrutiny, many manufacturers are instead utilizing natural preservatives, such as Vitamin C (ascorbate) and Vitamin E (tocopherals). These are generally considered to be much safer, but they are more expensive, and the result is a much shorter shelf life for these products. This strikes us as somewhat of an acknowledgement of the potential health hazards connected to the use of chemical additives.

As such, it is entirely possible that Propyl Gallate is a harmless chemical preservative. However, because we don't know for sure, and because the FDA has not exactly been diligent in questioning the safety of the other chemical preservatives used in pet foods to date, *and* because its use in pet foods is *completely unnecessary* , we designate it as an ingredient to avoid (☠).

Grape Pomace

Grape Pomace is the solid remains of the fruit after pressing it for juice or wine. It is essentially the pulp, peel, seeds and stalks of fruit after the oil, water or other liquid has been pressed out. Pomace is most commonly used as an animal feed or a fertilizer.

In and of itself, grape pomace would not seem to be a hazardous additive, and may even contribute some fiber to the product. However, and unfortunately, grapes (and raisins) have recently been confirmed as potential causes of acute renal failure in dogs. While the exact issue is unclear, there isn't any means to determine the susceptibility of an individual dog. While as little as one grape can be fatal to a susceptible ten pound dog, many other dogs have eaten as much as a pound of grapes or raisins at a time without ill effects. The dog usually vomits a few hours after consumption and begins showing signs of renal failure three to five days later.

So again, we will err on the side of caution here, especially since this is an ingredient that provides little to no nutritional value anyway, and is an entirely unnecessary additive to pet foods (☠).

Animal Fat

Animal Fat is obtained from the tissues of mammals in the commercial process of rendering or extracting. It is a byproduct of meat meal processing. The origin of the contributing animals is never disclosed, and the resulting oil is very low in linoleic acid -- an essential fatty acid for skin and coat health. A preferable ingredient would be high quality chicken fat, which has the highest levels of linoleic acid.

As with Animal Digest, any kind of animals can be used, including the so-called "4-D animals" (dead, diseased, disabled or dying). This can also mean goats, pigs, horses, rats, roadkill, euthanized animals, and restaurant and grocery refuse. There is no control or monitoring of quality or contamination.

We stick by our rule to avoid all ingredients that fall under the imprecise source umbrella (☠).

Fish Oil

Fish Oil is the oil produced from rendering whole fish. Per the AAFCO guidelines, Fish Oil can contain cannery refuse, damaged, defective, or superfluous edible material produced during, or left over from, a manufacturing or industrial process. This generic oil is an inferior source of nutrients. A preferable ingredient would be the more specifically derived herring oil, which is an excellent source of Omega-3 Fatty Acids.

We are only skeptical about the use of Fish Oil because of the imprecise origination. Again, we must stick by our imprecise source rule (☠).

Poultry Fat

Poultry Fat is obtained from the tissue of poultry in the commercial process of rendering or extracting. Per AAFCO guidelines,

it can contain only the fatty matter natural to the product contrived under good manufacturing practices. It must contain, "not less than 90% total fatty acids and not more than 3% of unsaponifiables and impurities."

Like "animal," poultry is a vague term which can comprise so-called "4-D animals," turkey, chicken, geese, buzzards, seagulls, roadkill and euthanized pets, and the resulting oil is nutritionally sub par. A preferable ingredient would be the high quality, very specifically named chicken fat. We again opt to avoid the indiscernible sources (☠).

Beef & Bone Meal

Beef and Bone Meal is the rendered product from beef tissues, including bone, "exclusive of any added blood, hair, hoof, horn, hide trimmings, manure, stomach and rumen contents, except in such amounts as may occur unavoidably in good processing practices," per AAFCO guidelines.

Beef and Bone Meal is a byproduct made from beef parts which are deemed unsuitable for human consumption. It can incorporate the entire cow, including the bone, but the quality cuts of beef are always removed before beef and bone meal is made.

We prefer to avoid byproducts of any kind in our dog's diet. In addition, beef is a common cause of skin allergies in dogs. As such, Chicken is considered a better source of protein (☠).

Blood Meal

Blood Meal is dried, powdered blood, used as a high nitrogen fertilizer. It usually comes from cattle as a slaughterhouse byproduct.

Like Glandular Meal, Blood Meal (among other materials) was banned from livestock feed in 1997 by the FDA because it can be an avenue of infection for mad cow disease.

Blood Meal is an inexpensive protein booster of vague origin. We feel it has better use as a fertilizer than as a dog food ingredient (☠).

Chicken Byproduct Meal

Chicken Byproduct Meal derives from the dry, ground, rendered, clean parts of the slaughtered chicken carcass, including necks, feet, undeveloped eggs and intestines. It is exclusive of feathers, "except in such amounts as might occur unavoidably in good processing," per AAFCO guidelines.

Because of the multiple organs used, the continually changing proportions, and the questionable nutritional value, chicken byproduct meal can, at best, be described as an inconsistent ingredient. By definition, byproducts are animal parts deemed unfit for human consumption. Some view the use of byproducts in dog food as perfectly okay. We prefer to leave byproducts where they belong -- in the dumpster -- and out of our dog's bowl (☠).

Dried Egg Product

Egg Product is obtained from egg graders, egg breakers and/or hatchery operations. It is dehydrated, handled as a liquid, or frozen. Egg Product consists of the unused leftovers from eggs for human consumption. It can include undeveloped eggs, shells, and other tissues deemed unfit for human use.

The preferable ingredient would be grade A, whole eggs, which are an excellent source of protein, with naturally occurring complex combinations of amino acids. The same nutritional value cannot be derived from the dried Egg Product.

Again, we opt to leave the garbage where it belongs (☠).

Fish Meal

Fish Meal is the commercial product derived from the waste of fisheries, after the human-consumable material is removed, or from whole fish which themselves are not suitable for human consumption. The major use is as a high-protein supplement in the feed for livestock.

Again we have the vague term, "fish" where a more specific source, such as salmon would be preferable, and again we are dealing

with undesirable byproducts. More disturbing, however, is the *hidden ingredient* inextricably linked to Fish Meal.

Per the US Code of Federal Regulations, the US Coast Guard mandates that Fish Meal must be preserved with Ethoxyquin (*http://www.gpoaccess.gov/cfr/index.html*):

> [Code of Federal Regulations]
> [Title 46, Volume 5]
> [Revised as of October 1, 2003]
> From the U.S. Government Printing Office via GPO Access
> [CITE: 46CFR148.04-9]
> [Page 19]
>
> TITLE 46--SHIPPING
>
> CHAPTER I--COAST GUARD, DEPARTMENT OF HOMELAND SECURITY (CONTINUED)
>
> PART 148--CARRIAGE OF SOLID HAZARDOUS MATERIALS IN BULK--Table of Contents
>
> Subpart 148.04--Special Additional Requirements for Certain Material
>
> Sec. 148.04-9 Fishmeal or scrap, ground or pelletized; fishmeal or scrap, ground and pelletized (mixture). . . .
>
> (c) At the time of production of the material, it must be treated with at least 400 ppm antioxidant (ethoxyquin); in the case where the material contains more than 12 percent fat by weight, it must be treated with at least 1000 ppm antioxidant (ethoxyquin) at the time of production.
>
> [Code of Federal Regulations]
> [Title 49, Volume 2]
> [Revised as of October 1, 2005]
> From the U.S. Government Printing Office via GPO Access
> [CITE: 49CFR173.218]
> [Page 544]
>
> TITLE 49--TRANSPORTATION
>
> CHAPTER I--PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION,
> DEPARTMENT OF TRANSPORTATION
>
> PART 173_SHIPPERS_GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS
> --Table of Contents
>
> Subpart E_Non-bulk Packaging for Hazardous Materials Other Than Class 1

and Class 7

Sec. 173.218 Fish meal or fish scrap. . . .

(c) When fish scrap or fish meal is offered for transportation by vessel in bulk in freight containers, the fish meal must contain at least 100 ppm of anti-oxident (ethoxyquin) at the time of shipment.

So, if Fish Meal is used, you can be certain that Ethoxyquin is also an ingredient, whether or not it is listed. None of this speaks very well for the use of Fish Meal in our dog's food (☠).

Liver Meal

Liver Meal is the dried product of ground hepatic (liver) glands of mammals. Whenever the name of an organ appears by itself on a pet food label (that is, sans species), there is no way to know from whence it came. The origin of the liver could be horse, goat, duck, pig, skunk, or other animals of questionable origin.

We prefer not to be surprised by what our dog is eating (☠).

Meat & Bone Meal

Meat Meal or Meat & Bone Meal is the rendered product from mammal tissues, with or without bone, exclusive of any added blood, hair, hoof, horn, hide trimmings, manure, stomach and rumen contents, "except in such amounts as may occur unavoidably in good processing practices," per AAFCO guidelines.

Upon reading this ingredient, most people immediately associate it with beef. But, "meat" would be one of the big ones under the imprecise source umbrella. Calling it "Mystery Meat" would actually be more precise (and telling). It can include pigs, goats, horses, rabbits, rendered animals from shelters and roadkill. Meat meal can contain condemned parts and animals rejected for human consumption, including "4-D animals." Additionally, "meat" can include pus, cancerous tissue and decomposed (*read spoiled*) tissue.

We steadfastly abide by our No Mystery Meat rule (☠).

Pork & Bone Meal

Pork and Bone Meal is the rendered product from pork tissues, including bone but, "exclusive of any added blood, hair, hoof, horn, hide trimmings, manure, stomach and rumen contents except in such amounts as may occur unavoidably in good processing practices," per AAFCO guidelines.

This is a byproduct made from pork parts that have been deemed unsuitable for human consumption. It can incorporate the entire pig, including the bone, but the quality cuts of pork are always removed for the meal is made.

Pork and Bone Meal is an inexpensive, low quality ingredient used to boost the protein percentage. Again, we opt to avoid the byproducts, and instead offer our dogs high quality chicken protein (☠).

Poultry Byproduct Meal

Poultry Byproduct Meal consists of the ground, rendered, clean parts of the slaughtered poultry carcass, including necks, beak, feet, undeveloped eggs and intestines, exclusive of feathers, "except in such amounts as may occur unavoidably in good processing practices," per AAFCO guidelines.

If you have been paying attention thus far, you can probably guess where this is going. Poultry Byproduct Meal is another inconsistent ingredient because of the multiple organs used, and the continually changing proportions. It is also unfavorable because it originates from any fowl, instead of a single source. The preferred ingredient would be the more expensive, more digestible, and far more nutritionally sound Chicken Meal (☠).

Poultry Meal

Poultry Meal is the clean combination of poultry flesh and skin, with or without the bone. It does not contain feathers, heads, feet or entrails, per AAFCO guidelines.

The vague term "poultry" opens the door to a multitude of fowls, pun explicitly intended. The source can be virtually any kind of bird,

including turkey, chicken, geese, buzzard, seagulls, roadkill, euthanized birds, and so-called "4-D animals."

The preferred ingredient would be the more expensive, more digestible, and far more nutritionally sound Chicken Meal (☠).

Menadione Sodium Bisulfate

Menadione Sodium Bisulfate is a synthetic form of Vitamin K, also known as vitamin K3. It is added as an inexpensive Vitamin K supplement in commercial dog foods, but its use is somewhat puzzling. For one, no one is able to demonstrate a daily dietary requirement for vitamin K.

It would seem to be an unnecessary ingredient in dog foods, and in fact, Vitamin K has not been specifically approved for long term use. it has also been linked to many serious health issues, including, but not limited to:

- causing cytotoxicity in liver cells
- weakening the immune system
- having potential mutagenic effects
- damaging the natural Vitamin K cycle
- causing hemolytic anemia and jaundice
- being directly toxic in high doses
- causing irritation of skin and mucous membranes
- causing allergic reactions and eczema

Since it doesn't need to be there anyway, and the potential risks are numerous and serious, we feel it would be best just to avoid Menadione Sodium Bisulfate altogether (☠).

Chapter 3 - Ingredients Which Are Acceptable In Moderation

“Does this color look normal to you? I think the commercial dog food is giving me a rash!”

A Little (Probably) Won't Hurt

The ingredients discussed in this chapter are those that are not specifically harmful when consumed in moderation. It is important to remember, though, that while these ingredients may not explicitly cause harm, they are not necessarily healthful either. For the most part, these would be unnecessary, inexpensive filler ingredients which provide little nutritional value for your dog.

Apple Pomace

Apple Pomace is the waste product from juicing apples. It is essentially the pulp, peel, seeds and stalks of fruit after the water or other liquid has been pressed out.

It would not seem that Apple Pomace would be a hazardous additive, and it is mainly used as an inexpensive source of fiber. It does not, however, contain the whole complement of nutrients contained in the whole fruit, which would be the preferable ingredient here.

Citrus Pulp

Citrus Pulp is the dried residue of peels, pulp and seeds from oranges, grapefruit and other citrus fruit. It is mainly used as a bulk carbohydrate concentrate in cattle feed, but it is also added as a source of fiber in dog food.

Since the peel and some twigs and leaves are also included, there is the possibility of some residue from pesticides and synthetic fertilizers being present in the final product. The pulp also lacks the nutritional value of the whole fruit itself. Again, the preferred ingredient here would be the whole fruit.

Dried Beet Pulp

Dried Beet Pulp is the dried residue from sugar beets, which has been cleaned, freed from crowns, leaves and sand, and extracted in the process of manufacturing sugar. It is added to some pet foods to act as a fibrous stool hardener.

Dried Beet Pulp would seem to be an unnecessary additive. It would be preferable to derive the fiber in your dog's diet from all-natural ingredients. Additionally, any added sweeteners should be avoided, or at least kept to a bare minimum.

Cereal Food Fines

Cereal Food Fines are byproducts of breakfast cereal production. They are an inexpensive filler of unknown source, nutritional value and quality. There is the potential for chemical residue, sweeteners and other unlisted additives.

Cereal Food Fines is an ingredient that would be best kept to a minimum.

Grain Fermentation Solubles

Grain Fermentation Solubles are the dried material resulting from drying the water soluble materials after separation of suspended solids from grain fermentation.

These additives are an inexpensive byproduct of human food and beverage production, but add little or no nutritional value to dog food. The preferable ingredient would be whole, unaltered grains to provide the essential carbohydrates.

Ground Whole Grain Sorghum

Sorghum is a ground grain of the Sorghum plant. It is a member of the grass family, its leaves and stalk resembling corn, but without ears. Sorghum is a good source of carbohydrates, but is not easily digestible by dogs. As such, it would primarily be an unnecessary, though relatively harmless filler ingredient. It would best be kept to a minimum because it lacks nutritional value.

Beef Tallow

Also called Beef Fat, Beef Talllow is obtained from the tissue of cattle in the commercial process of rendering. It is considered a very palatable source of fat, but lacking in linoleic acid, which is necessary

for skin coat and health. It is used because it is an inexpensive substitute for a good quality vegetable oil or the nutritionally superior chicken fat, which would be the preferred ingredients.

Lard

Lard is the rendered fat of swine. It is very palatable, so it is often used to make a poor quality food more appealing. It is essentially harmless, but its nutritional benefit pales as compared to Chicken Fat, which would be the preferred ingredient in your dog's diet.

Ground Corn

Ground Corn is the entire corn kernel, ground or chopped. Corn products are commonly used in dog foods as the primary protein source. With their short and simple digestive tracts, dogs find it difficult to process large amounts of vegetation, grains and fiber. Their systems are much more conducive to the breakdown of animal proteins and fat.

As such, pet foods which boast corn, soy or their corresponding meals as their primary ingredient are of little use to your dog, nutritionally-speaking. Animal-based protein is nutritionally superior for dogs. Animal-based protein is better absorbed and retained and is higher in essential amino acids like methionine, arginine, and taurine, all of which are absent in plant-based proteins.

Rice Gluten Meal

Rice Gluten Meal is the dried residue from rice after the removal of the larger part of the starch and germ, and the separation of the bran by the process in the wet milling manufacture of rice starch or syrup, or by enzymatic treatment of the endosperm.

Rice Gluten is a poor quality protein filler. The "Crude Protein" analysis on pet food labels is only a measurement of the amount of nitrogen in a food, not the quality of the protein. Because of this, pet food companies can use the cheaper by-products of human food production, such as Rice Gluten Meal. Meat-based proteins are always the preferable source. Meat protein is better absorbed and retained and is higher in essential amino acids like methionine, arginine, and

taurine. Rice Gluten Meal has a biologic value less than 50% of Chicken Meal.

Soybean Meal

Soybean Meal is obtained by grinding the flakes which remain after removal of most of the oil from soybeans, by a solvent or mechanical extraction process.

Soybean Meal is a poor quality protein filler. The "Crude Protein" analysis on pet food labels is only a measurement of the amount of nitrogen in a food, not the quality of the protein. Meat-based proteins are always the preferable source. Meat protein is better absorbed and retained and is higher in essential amino. Soybean Meal has a biologic value less than 50% of Chicken Meal.

Cane Molasses

Cane Molasses is a byproduct of the manufacture of sucrose from sugar cane. Any sugar or sweetener is an absolutely unnecessary ingredient in pet foods, added only to make the (likely low grade) product more palatable.

Continuous intake can promote hypoglycemia, obesity, nervousness, cataracts, tooth decay, arthritis and allergies. Dogs can also get "addicted" to foods that contain sugars, and it will be tough to redirect their palates towards healthier fare.

Corn Syrup

Corn Syrup is prepared from cornstarch, used in the pet food industry and a million other food products as a sweetener. Any sugar or sweetener is an absolutely unnecessary ingredient in pet foods, added only to make the (likely low grade) product more palatable.

As with Cane Molasses, continuous intake can promote hypoglycemia, obesity, nervousness, cataracts, tooth decay, arthritis and allergies. Dogs can also get "addicted" to foods that contain sugars, and it will be tough to redirect their palates towards healthier fare.

Fructose

Fructose is a very sweet sugar, used as a preservative for food, as well as an intravenous nutrient.

Fructose is a monosaccharide found naturally in fresh fruit and honey. Used in small quantities, it serves as a nutrient for probiotics, which are dietary supplements containing beneficial bacteria or yeast. Probiotic bacterial cultures are intended to assist the body's naturally occurring flora within the digestive tract to reestablish themselves. Claims are made that probiotics strengthen the immune system.

Sorbitol

Sorbitol is a white, sweet, crystalline alcohol. It occurs naturally in various berries and fruits, or is prepared synthetically and used as a flavoring agent, as a sugar substitute for diabetics, and as a cosmetic moisturizer.

Any sugar or sweetener is an absolutely unnecessary ingredient in pet foods, added only to make the (likely low grade) product more palatable.

As with Cane Molasses and Corn Syrup, continuous intake can promote hypoglycemia, obesity, nervousness, cataracts, tooth decay, arthritis and allergies. Dogs can also get "addicted" to foods that contain sugars, and it will be tough to redirect their palates towards healthier fare.

Sugar

Used on a pet food label, the term sugar can include sucrose, cane sugar, caramel and corn syrup, among other sweeteners. Any sugar or sweetener is an absolutely unnecessary ingredient in pet foods, added only to make the (likely low grade) product more palatable. Continuous intake can promote hypoglycemia, obesity, nervousness, cataracts, tooth decay, arthritis and allergies. Dogs can also get "addicted" to foods that contain sugars, and it will be tough to redirect their palates towards healthier fare.

Chapter 4 - Ingredients Which Are Acceptable But Useless

‘Dreaming of a Better World’

OK, But Why Bother?

The ingredients discussed in this chapter are those that are not harmful in and of themselves. In general, while these ingredients are indeed harmless, they are also worthless. Since they add no nutritional value, and are completely unnecessary additives, we say, "Why bother?" We can come up with no good reason to saturate our dogs' diets with useless filler.

Phosphoric Acid

Phosphoric Acid is a clear, colorless liquid used in fertilizers, detergents, food flavoring and pharmaceuticals. It is considered a harmless, but superfluous ingredient, used in inexpensive, poor quality dog food as flavoring, emulsifier and discoloration inhibitor. It is also used as a flavoring for Coca Cola.

Wheat Gluten

Wheat Gluten is the tough, thick and adhesive nitrogenous substance remaining when wheat is washed to remove the starch. It is a cheap byproduct of human food processing with almost no nutritional value. It is added to dog food primarily as a binder.

Titanium Dioxide

Titanium Dioxide is the naturally occurring oxide of titanium. It is a natural food coloring, called Titanium White or Pigment White 6. It is the most widely used white pigment because of its brightness. It is employed as a pigment to provide whiteness and opacity to products such as paints, coatings, plastics, papers, inks, foods and most toothpastes.

In cosmetic and skin care products, Titanium Dioxide is used both as a whitener and a thickener. It is found in almost every sunblock with a physical blocker, both because of its refractive index and its resistance to discoloration under ultraviolet light. This advantage enhances its stability and ability to protect the skin from ultraviolet light.

Titanium Dioxide is non toxic and harmless, but adds no value to the dog food product, and could just as well be left out.

Brewer's Rice

Brewer's Rice is the small milled fragments of rice kernels that have been separated from the larger kernels of milled rice. It is a processed rice product that is missing many of the nutrients contained in whole ground rice and brown rice, which would be the preferred ingredients. It is used in low grade pet foods primarily because it is cheaper than whole grain rice.

Feeding Oat Meal

Feeding Oat Meal is obtained in the manufacture of rolled oat groats or rolled oats. It consists of, "rolled oat groats, oat groat chips, and floury portions of the oat groats, with only such quantity of finely ground oat hulls as is unavoidable in the usual process of commercial milling," per AAFCO guidelines.

Feeding oat meal is a fractionated grain which results from processing oats for human consumption. It is missing the nutritional value of whole oats, as the hull and portions of the endosperm are missing. The preferred carbohydrate source would be Oatmeal, which is a natural, healthy grain, rich in B vitamins.

Cracked Pearl Barley or Barley Flour

Cracked Pearl Barley and Barley Flour are fractionated grain ingredients, which are leeched of much of their nutritional value. The preferred, quality carbohydrate source would be Ground Barley, which is the entire barley kernel, ground or chopped. By using the entire kernel, ground barley contributes additional protein, barley oil, bran, vitamins and minerals to the diet, all of which are lacking in Cracked Pearl Barley and Barley Flour.

Potato Product

Potato Product would be potato pieces, peeling, culls, obtained from the manufacture of processed potato products for human

consumption. It is a cheap byproduct of human food processing that has been stripped of much of the nutritional benefits that whole, fresh potatoes offer.

Soy Flour

Soy Flour is the finely powdered material resulting from the screened and graded product after removal of most of the oil from selected, sound, cleaned and dehulled soybeans by a mechanical or solvent extraction process. Most of the nutritional value is already lost during the processing of the grain to flour.

Vegetable Oil

Vegetable Oil is the product of vegetable origin obtained by extracting the oil from the seeds or fruits which are processed for edible purposes. While harmless, it is a nutritionally inferior fat source to Chicken Fat or Herring Oil.

Cellulose

Cellulose forms the primary structural component of green plants. It is the major constituent of paper.

Some animals, particularly ruminants and termites can digest cellulose, but it is not digestible by humans. It is often referred to as "dietary fiber" or "roughage."

Cellulose is cleaned, processed into a fine powder and used to add bulk and consistency to cheap pet foods. It's value as a fiber in the dog's diet is minimal. We're thinking this one is better left on the shelf.

Corn Bran

Corn Bran is the outer coating of the corn kernel. Most of the nutritional value has been leeched in processing. Corn Bran has been reduced to an inexpensive source of fiber that serves as a filler ingredient to add bulk to cheap, low quality dog foods.

Corn Cellulose

Corn Cellulose is a product derived from the cell walls of corn, using a chemical process. It has no nutritional value, and is used primarily to add bulk and consistency to cheap, poor quality dog foods.

Oat Hulls

Comparable to Peanut Hulls, Oat Hulls are the remaining product from dehulling the whole oat kernels after harvesting. It is not the same as Oat Bran, which is a quality source of dietary fiber and removed prior to rolling and/or flaking.

Oat Hulls have no nutritional value, and are used primarily as a filler ingredient in low grade pet foods.

Peanut Hulls

A Peanut Hull is the outer covering of the peanut shell. They are completely lacking in nutritional value. Their only use is as a cheap filler ingredient in low grade pet foods.

Rice Hulls

A Rice Hull is the outer covering of rice. This is an inexpensive byproduct of human food processing, serving only as a filler ingredient in low grade pet foods.

Soybean Mill Run

Soybean Mill Run is composed of soybean hulls and such bean meats that adhere to the hulls which results from normal milling operations in the production of dehulled soybean meal.

This is an inexpensive byproduct of human food processing, commonly referred to as, "floor sweepings." Soybean Mill Run is an inexpensive filler, completely lacking in any nutritional value.

Wheat Mill Run

Wheat Mill Run comprises course and fine particles of wheat bran and fine particles of wheat shorts, wheat germ, wheat flour, and the offal from the "tail of the mill." It is also listed as "Wheat Middlings."

Wheat Mill Run is an inexpensive byproduct of human food processing. Like Soybean Mill Run, it is commonly referred to as, "floor sweepings." And, also like Soybean Mill Run, it is an inexpensive filler, completely lacking in any nutritional value for your pet.

Corn Germ Meal

Corn Germ Meal is ground corn germ which consists of corn germ with other parts of the corn kernel from which part of the oil has been removed and is obtained from either a wet or dry milling manufacturing process of corn meal, corn grits, hominy feed, or other corn products.

Because corn germ meal is a grain fraction, it only supplies a fraction of the nutrients present in the whole grain. It is an inexpensive byproduct of human food processing that is actually rich in protein, but is of little value to the dog's protein needs. It is a harmless ingredient, mostly used as a protein booster in poor quality foods.

Corn Gluten Meal

Corn Gluten Meal is the dried residue from corn after the removal of the larger part of the starch and germ, and the separation of the bran by the process employed in the wet milling manufacture of corn starch or syrup, or by enzymatic treatment of the endosperm.

Corn Gluten Meal is an inexpensive byproduct of human food processing which contains some protein, but is used mainly to bind the food together. It is harmless, but low in nutritional value.

Bone Phosphate

Bone phosphate is the residue of bones that have been treated first in a caustic solution then in a hydrochloric acid solution, and thereafter precipitated with lime and dried. It is a highly processed feed-grade supplement used to balance the calcium and phosphorous content of a product.

There is no good reason the dog's diet should require this supplement.

Salt

On dog food ingredients labels, salt may appear as the chemical compound Sodium Chloride or as Iodized Salt (iodine supplement added), or as Sea Salt (differentiating it from salt mined from underground deposits). It is used extensively in ground or granulated form as a food seasoning and preservative.

While Salt is a necessary mineral, it is also generally present in sufficient quantities in the ingredients already present, and should not be necessary to supplement. Just as for humans, too much sodium intake is unhealthy for dogs. In poor quality foods, Salt is often used in large amounts to add flavor and make the food more palatable.

Mineral Oil

Mineral Oil is classified as any of various light hydrocarbon oils, especially a distillate of petroleum. It functions as a laxative and stool softener.

There is no good reason the dog's diet should require this supplement.

Yeast Culture

Yeast Culture is the dried product comprising yeast and the media on which it is grown. It is dried in such a manner so as to preserve the fermenting activity of the yeast.

This is an unnecessary, feed-grade ingredient in pet foods, added primarily as a flavoring to make the low grade food more palatable. It lacks the nutritional value of higher quality yeast supplements.

Dl-Alpha Tocopherol Acetate

Dl-Alpha Tocopherol Acetate is synthetic Vitamin E. It is only about half as effective as natural Vitamin E, and is not as readily available to the body. This supplement is of little use in dog foods.

Conclusion

If roles were reversed, our dogs would consider no task too great to ensure our health and well-being…. look in your dog's eyes and you'll know this to be true. They are our angels on Earth.

May you dog live a long and happy life,

Andrew Lewis

Andrew Lewis