

Ingredients to avoid

Ingredients are listed by category This is not a comprehensive list of dangerous and/or poor quality ingredients, but it names most of the ones that are used especially in lower-end foods and should be avoided. The list will change and possibly grow as my research progresses.

Additives

Glyceryl
Monostearate

A lipophilic non-ionic surfactant with HLB of 3.6 - 4.2. It has effects of emulsification, dispersion, foaming, defoaming, starch anti-aging and fat agglomeration control, and is widely used in foodstuffs, cosmetic, medicine and plastic processing industries. It is an emulsifier used the most widely and in the largest quantities in the foodstuff industry.

A thickening, emulsifying, antisticking and antistalant agent. Can contain up to 200 ppm butylated hydroxytoluene (BHT) as a preservative (see also BHT). Depending on method of manufacture, it can also contain glyceryl distearate (42-44%), glyceryl tristearate (20-23%), free glycerol (3-5%). Other impurities include mono-, di-, and triesters of related fatty acids as well as unreacted fatty acids. Due to the uncertainty of chemical additives, this ingredient should be avoided.

Phosphoric Acid

A clear colorless liquid, H_3PO_4 , used in fertilizers, detergents, food flavoring, and pharmaceuticals.

A harmless but unnecessary ingredient, used in inexpensive, poor quality dog food as flavoring, emulsifier and discoloration inhibitor. Used for example as a flavoring for Coca Cola.

Propylene Glycol

A colorless viscous hygroscopic liquid, $CH_3CHOHCH_2OH$, used in antifreeze solutions, in hydraulic fluids, and as a solvent.

Used as humectant in semi-moist kibble to keep it from drying out. May be toxic if consumed in large amounts, and should definitely not be an ingredient in a food an animal will eat daily for weeks, months or even years of its life. In countries of the European Union, propylene glycol is not cleared as a general-purpose food grade product or direct food additive.

Binders

Corn Gluten I have not been able to locate an official definition of this product, but since it is contained in only one formulation of one manufacturer (Excel Chunks/Mini Chunks), I assume it is the same as "Corn Gluten Meal".

An inexpensive by-product of human food processing which offers very little nutritional value and serves mainly to bind food together. It is not a harmful ingredient but should be avoided simply for its poor nutritional value and quality.

Wheat Gluten AAFCO: The tough, viscid nitrogenous substance remaining when wheat is washed to remove the starch.

An inexpensive byproduct of human food processing with almost no nutritional value left, serves mostly as a binder.

Carbohydrate Sources

Brewers Rice Also appears in ingredient lists as ground Brewers Rice.

AAFCO: The small milled fragments of rice kernels that have been separated from the larger kernels of milled rice.

A processed rice product that is missing many of the nutrients contained in whole ground rice and brown rice. Contrary to what many pet food companies want to make you believe, this is **not** a high quality ingredient, just much cheaper than whole grain rice.

Cereal Food Fines AAFCO: Particles of breakfast cereals obtained as a byproduct of their processing.

An inexpensive byproduct of human food processing of unknown source, quality, possible chemical residue, sweeteners or other additives.

Feeding Oat Meal AAFCO: Feeding oat meal is obtained in the manufacture of rolled oat groats or rolled oats and consists of broken 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.

A food-grade fractionated grain, byproduct from human food processing, that is not as nutritionally valuable as the product

obtained from whole oats.

Grain
Fermentation
Solubles

AAFCO: The dried material resulting from drying the water soluble materials after separation of suspended solids from grain fermentation.

An inexpensive byproduct of human food and beverage production which adds little or no nutritional value to pet foods.

Maltodextrins &
Fermentation
Solubles

I have not been able to locate an official definition for this product so far.

A brewery byproduct much like "grain fermentation solubles", with some maltodextrin from malted barley. Better suited for use in short term feeding like e.g. livestock than as an ingredient in pet food.

Potato Product

AAFCO: Potato pieces, peeling, culls, etc., obtained from the manufacture of processed potato products for human consumption.

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

Soy Flour

AAFCO: 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.

Much of the nutritional value is lost already during processing of the grain to flour. May contain particles of hull, germ, and the offal from the tail of the mill.

Coloring Agents

Blue 2 (artificial
color)

The color additive FD&C Blue No. 2 is principally the disodium salt of 2-(1,3-dihydro-3-oxo-5-sulfo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5-sulfonic acid with smaller amounts of the disodium salt of 2-(1,3-dihydro-3-oxo-7-sulfo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5-sulfonic acid and the sodium salt of 2-(1,3-dihydro-3-oxo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5-sulfonic acid. Additionally, FD&C Blue No. 2 is obtained by heating indigo (or indigo paste) in the presence of sulfuric acid. The

color additive is isolated and subjected to purification procedures. The indigo (or indigo paste) used above is manufactured by the fusion of N-phenylglycine (prepared from aniline and formaldehyde) in a molten mixture of sodamide and sodium and potassium hydroxides under ammonia pressure. The indigo is isolated and subjected to purification procedures prior to sulfonation.

The largest study suggested, but did not prove, that this dye caused brain tumors in male mice. The FDA concluded that there is "reasonable certainty of no harm", but personally I'd rather avoid this ingredient and err on the side of caution.

Red 40 (artificial color)

The color additive FD&C Red No. 40 is principally the disodium salt of 6-hydroxy-5-[(2-methoxy-5-methyl-4-sulfophenyl)azo]-2-naphthalenesulfonic acid.

The most widely used food dye. While this is one of the most-tested food dyes, the key mouse tests were flawed and inconclusive. An FDA review committee acknowledged problems, but said evidence of harm was not "consistent" or "substantial." Like other dyes, Red 40 is used mainly in junk foods. Personally I'd rather avoid this ingredient and err on the side of caution.

Titanium Dioxide

A white powder, TiO₂, used as an exceptionally opaque white pigment and dough conditioner.

Non toxic but an unnecessary ingredient that could just as well be left out.

Yellow 5 (artificial color)

The color additive FD&C Yellow No. 5 is principally the trisodium salt of 4,5-dihydro-5-oxo-1-(4-sulfophenyl)-4-[4-sulfophenyl-azo]-1H-pyrazole-3-carboxylic acid (CAS Reg. No. 1934-21-0). To manufacture the additive, 4-amino-benzenesulfonic acid is diazotized using hydrochloric acid and sodium nitrite. The diazo compound is coupled with 4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazole-3-carboxylic acid or with the methyl ester, the ethyl ester, or a salt of this carboxylic acid. The resulting dye is purified and isolated as the sodium salt.

The second most widely used coloring can cause mild allergic reactions, primarily in aspirin-sensitive persons.

Yellow 6
(artificial color)

The color additive FD&C Yellow No. 6 is principally the disodium salt of 6-hydroxy-5-[(4-sulfophenyl)azo]-2-naphthalenesulfonic acid (CAS Reg. No. 2783-94-0). The trisodium salt of 3-hydroxy-4-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid may be added in small amounts. The color additive is manufactured by diazotizing 4-aminobenzenesulfonic acid using hydrochloric acid and sodium nitrite or sulfuric acid and sodium nitrite. The diazo compound is coupled with 6-hydroxy-2-naphthalene-sulfonic acid. The dye is isolated as the sodium salt and dried. The trisodium salt of 3-hydroxy-4-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid which may be blended with the principal color is prepared in the same manner except the diazo benzenesulfonic acid is coupled with 3-hydroxy-2,7-naphthalenedisulfonic acid.

Industry-sponsored animal tests indicated that this dye, the third most widely used, causes tumors of the adrenal gland and kidney. In addition, small amounts of several carcinogens contaminate Yellow 6. However, the FDA reviewed those data and found reasons to conclude that Yellow 6 does not pose a significant cancer risk to humans. Yellow 6 may also cause occasional allergic reactions. Another ingredient I would rather avoid and err on the side of caution rather than risking my pet's health.

Fat Sources

Animal Fat

AAFCO: Obtained from the tissues of mammals and/or poultry in the commercial processes of rendering or extracting. It consists predominantly of glyceride esters of fatty acids and contains no additions of free fatty acids. If an antioxidant is used, the common name or names must be indicated, followed by the words "used as a preservative".

Note that the animal source is not specified and is not required to originate from "slaughtered" animals. The rendered animals can be obtained from any source, so there is no control over quality or contamination. Any kind of animal can be included: "4-D animals" (dead, diseased, disabled, or dying prior to slaughter), goats, pigs, horses, rats, misc. roadkill, animals euthanized at shelters, restaurant and supermarket refuse and so on.

Beef Tallow

AAFCO: Fat with titer above 40 degrees Celsius, obtained from the tissue of cattle in the commercial process of rendering. Also called Beef Fat.

Dogs and cats like the taste of this fat, so it is often used to make low-quality food more palatable. Beef tallow is very low in linoleic acid and much cheaper for the pet food industry to use than a good quality vegetable oil or nutritionally rich chicken fat.

Lard

AAFCO: The rendered fat of swine.

Very low in linoleic acid but very attractive to pets, used to make poor quality food more appealing. Few nutritional benefits.

Poultry Fat

AAFCO: Obtained from the tissue of poultry in the commercial process of rendering or extracting. It shall contain only the fatty matter natural to the product produced under good manufacturing practices and shall contain no added free fatty acids or other materials obtained from fat. It must contain not less than 90 percent total fatty acids and not more than 3 percent of unsaponifiables and impurities. It shall have a minimum titer of 33 degrees Celsius. If an antioxidant is used, the common name or names must be indicated, followed by the word "preservative(s)".

Note how in this product the source is not defined as "slaughtered poultry". The rendered fowl can be obtained from any source, so there is no control over quality or contamination. Any kind of animal can be included: "4-D animals" (dead, diseased, disabled, or dying prior to slaughter), turkey, chicken, geese, buzzard, seagulls, misc. roadkill, birds euthanized at shelters and so on.

Vegetable Oil

AAFCO: The product of vegetable origin obtained by extracting the oil from seeds or fruits which are processed for edible purposes.

The source vegetables for this oil (and therefore the nutrient properties or lack thereof) are unknown. Wouldn't you like to know just what exactly you are feeding your pet?

Fiber Sources

Cellulose

AAFCO: Purified, mechanically disintegrated cellulose prepared by processing alpha cellulose obtained as a pulp from fibrous plant materials.

Dried wood is the most common source for cellulose (I'm not kidding.). It is cleaned, processed into a fine powder and used to add bulk and consistency to cheap pet foods. I would consider this

ingredient appropriate for termites, but certainly not for dogs or cats.

Corn Bran

AAFCO: The outer coating of the corn kernel.

An inexpensive source of fiber that serves as a filler ingredient to add bulk to poor quality pet food.

Corn Cellulose

AAFCO: A product obtained from the cell walls of corn.

Obtained by use of a chemical process, it is used to add bulk and consistency to cheap pet foods and has no nutritional value.

Oat Hulls

I have not been able to locate an official definition for this product so far.

Most likely what is left over from dehulling the whole oat kernels after harvesting, comparable to peanut hulls. It is not the same as oat bran (the hull that protects the grain itself), which is a quality source of dietary fiber and removed prior to rolling and/or flaking. Thumbs down for this filler ingredient.

Peanut Hulls

AAFCO: The outer hull of the peanut shell.

No nutritional value whatsoever, and are used exclusively as a cheap filler ingredient. Possibility of pesticide residues being present.

Rice Hulls

AAFCO: The outer covering of rice.

An inexpensive byproduct of human food processing, serving as a source of fiber that is considered a filler ingredient.

Soybean Mill Run

AAFCO: 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.

An inexpensive byproduct of human food processing, commonly referred to as 'floor sweepings'. An inexpensive filler with no real

nutritional value.

Wheat Mill Run May also appear as "Wheat Middlings".

AAFCO: Coarse and fine particles of wheat bran and fine particles of wheat shorts, wheat germ, wheat flour and offal from the "tail of the mill".

An inexpensive byproduct of human food processing, commonly referred to as 'floor sweepings'. An inexpensive filler with no real nutritional value.

Flavoring Agents

Animal Digest AAFCO: A material which results from chemical and/or enzymatic hydrolysis of clean and undecomposed animal tissue. The animal tissues used shall be exclusive 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.

A cooked-down broth made from unspecified parts of unspecified animals. The animals used can be obtained from any source, so there is no control over quality or contamination. Any kind of animal can be included: "4-D animals" (dead, diseased, disabled, or dying prior to slaughter), goats, pigs, horses, rats, misc. roadkill, animals euthanized at shelters, restaurant and supermarket refuse and so on.

Digest May also appear as dried, or spray dried. Sometimes the type and part of animals used is specified, such as in "Chicken Digest", "Lamb Digest" or "Poultry Liver Digest"

AAFCO: Material which results from chemical and/or enzymatic hydrolysis of clean and undecomposed animal tissue. The animal tissues used shall be exclusive 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. .

A cooked-down broth made from specified, or worse, unspecified parts of specified or unspecified animals (depending on the type of digest used). If the source is unspecified (e.g. "Animal" or "Poultry", the animals used can be obtained from any source, so there is no control over quality or contamination. Any kind of animal can be included: "4-D animals" (dead, diseased, disabled, or dying prior to

slaughter), goats, pigs, horses, rats, misc. roadkill, animals euthanized at shelters, restaurant and supermarket refuse and so on.

Flavor A substance, such as an extract or spice, that add flavor to a product.

The manufacturer may or may not give more detailed information about what is used for flavoring and whether it is made from a natural or chemical substance.

Glandular Meal I have not been able to locate an official definition for this product so far.

Since it is used as a "source of liver flavor" in poor quality foods, it is safe to assume that it is a meal obtained from the livers and other glands of various, unspecified animals. As with all generic, unspecified ingredients, it is wise to avoid.

Fruits & Vegetables

Apple Pomace AAFCO: The mixture of apple skins, pulp, and crushed seeds.

An inexpensive byproduct of human food processing. Does not contain the whole complement of nutrients as whole fresh or dried apples.

Citrus Pulp Citrus Pulp is the dried residue of peel, pulp and seeds of oranges, grapefruit and other citrus fruit.

This inexpensive byproduct is mainly used as a bulk carbohydrate concentrate in cattle feed but also added as a source of fiber in dog food. Since the peel and some twigs and leaves are also included, there is a possibility of residues from pesticides and synthetic fertilizers.

Grape Pomace AAFCO: The mixture of grape skins, pulp, and crushed seeds.

An inexpensive byproduct left over from pressing grapes for juice or wine. The product contributes some fiber but otherwise has little to no nutritinal value. Grapes have also shown to contain a substance that is toxic to dogs, so they should not be fed at all.

Preservatives

BHA	<p>Butylated Hydroxyanisole - a white, waxy phenolic antioxidant, C₁₁H₁₆O₂, used to preserve fats and oils, especially in foods.</p> <p>Banned from human use in many countries but still permitted in the US. Possible human carcinogen, apparently carcinogenic in animal experiments. The oxidative characteristics and/or metabolites of BHA and BHT may contribute to carcinogenicity or tumorigenicity.</p>
BHT	<p>Butylated Hydroxytoluene - a crystalline phenolic antioxidant, C₁₅H₂₄O, used to preserve fats and oils, especially in foods.</p> <p>Banned from human use in many countries but still permitted in the US. Possible human carcinogen, apparently carcinogenic in animal experiments. The oxidative characteristics and/or metabolites of BHA and BHT may contribute to carcinogenicity or tumorigenicity.</p>
Ethoxyquin	<p>6-ethoxy-1,2-dihydro-2,2,4-trimethylquinoline. Antioxidant; also a post-harvest dip to prevent scald on apples and pears.</p> <p>Originally developed by Monsanto as a stabilizer for rubber, Ethoxyquin has also been used as a pesticide for fruit and a color preservative for spices, and later for animal feed. The original FDA permit for use as stabilizer in animal feed limited use to two years and did not include pet food, but it falls under the same legal category. It has never been proven to be safe for the lifespan of a companion animal. It has been linked to thyroid, kidney, reproductive and immune related illnesses as well as cancer, but so far no conclusive, reliable research results either for the safety of this product or against it have not been obtained. Monsanto conducted research years ago, but results were so inconclusive due to unprofessional conduct and documentation that the FDA demanded another study. There are currently several studies underway to determine whether Ethoxyquin is safe or not, and until those studies are completed, pet food suppliers may continue to use Ethoxyquin. This is how things stand after about 6 years, and no new details have emerged so far.</p>
Propyl Gallate	<p>Also known as Gallic Acid or Propyl Ester. It is made from natural Gallic Acid, which is obtained by the hydrolysis of tannins from Tara</p>

Pods.

Used as an antioxidant to stabilize cosmetics, food packaging materials, and foods containing fats. I have not found conclusive evidence either for or against the safety of this product, but it is suspected of causing liver diseases and cancer, so once again personally I prefer to err on the side of caution. Mixed tocopherols, citric acid and rosemary extract are effective, all-natural alternatives - just more expensive.

Protein Sources

Beef & Bone
Meal

AAFCO: 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.

A byproduct made from beef parts which are not suitable for human consumption. It can incorporate the entire cow, including the bones, but the quality cuts of meat are always removed. This is an inexpensive, low quality ingredient used to boost the protein percentage.

Blood Meal

AAFCO: Blood Meal is produced from clean, fresh animal blood, exclusive of all extraneous material such as hair, stomach belchings and urine except as might occur unavoidably in good manufacturing process. A large portion of the moisture is usually removed by a mechanical dewatering process or by condensing by cooking to a semi-solid state. The semi-solid blood mass is then transferred to a rapid drying facility where the more tightly bound water is rapidly removed. The minimum biological activity of lysine shall be 80%.

An inexpensive protein booster. You have no way of knowing what type of animal the blood came from or what residues of hormones, medications or other substances are in this product. It has a better use as fertilizer than as a dog food ingredient.

Chicken
Byproduct Meal

AAFCO: Consists of the dry, ground, rendered, clean parts of the carcass of slaughtered chicken, such as necks, feet, undeveloped eggs, and intestines -- exclusive of feathers except in such amounts as might occur unavoidably in good processing practices.

Chicken byproducts are much less expensive and less digestible than the chicken muscle meat. The ingredients of each batch can vary

drastically in ingredients (heads, feet, bones etc.) as well as quality, thus the nutritional value is also not consistent. Don't forget that byproducts consist of any parts of the animal OTHER than meat. If there is any use for any part of the animal that brings more profit than selling it as "byproduct", rest assured it will appear in such a product rather than in the "byproduct" dumpster.

Corn Distillers
Dried Grains
With Solubles

Distillers Dried Grains with solubles (DDGS) is the product obtained by condensing and drying the stillage that remains after fermenting the starch in corn or milo in the production of ethyl alcohol.

An inexpensive byproduct used as protein filler in cheap dog foods. Its amino acids are poorly balanced, not very digestible, have a high fiber content and nutritional value can vary greatly from batch to batch. Better suited as cattle feed.

Corn Germ Meal

AAFCO: 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.

An inexpensive by-product of human food processing, rich in protein but sadly often used as a booster in poor quality foods. It is not a harmful ingredient but should not rank high in the ingredient list of a quality product.

Corn Gluten Meal

AAFCO: 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.

An inexpensive by-product of human food processing which contains some protein but serves mainly to bind food together. It is not a harmful ingredient but should not rank high in the ingredient list of a quality product.

Fish Meal

AAFCO: The clean, rendered, dried ground tissue of undecomposed whole fish or fish cuttings, either or both, with or without the extraction of part of the oil.

Like with all other animal sources, if a type isn't specified, you never know what type or quality of fish is used.

According to US Coast Guard regulations, all fish meal not destined for human consumption must be conserved with Ethoxyquin (unless the manufacturer has a special permit). This preservative is banned from use in foods for human consumption except for the use of very small quantities as a color preservative for spices. So unless the manufacturer either presents a permit or states "human grade" fish or fish meal is used, you can be pretty sure Ethoxyquin is present in the food even if it is not listed.

Liver Meal

AAFCO: The dried product of ground hepatic glands of mammals.

Whenever the word 'meat' or the name of an organ appear by themselves (without a species) on a pet food label, there is no way to know which kind of animal it came from. It could be horse liver, goat, duck, pig, or even skunk or other animals of questionable origin.

Meat & Bone Meal

AAFCO: 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.

The animal parts used can be obtained from any source, so there is no control over quality or contamination. Any kind of animal can be included: "4-D animals" (dead, diseased, disabled, or dying prior to slaughter), goats, pigs, horses, rats, misc. roadkill, animals euthanized at shelters and so on. It can also include pus, cancerous tissue, and decomposed (spoiled) tissue.

Meat Meal

AAFCO: The rendered product from mammal tissues, 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.

The animal parts used can be obtained from any source, so there is no control over quality or contamination. Any kind of animal can be included: "4-D animals" (dead, diseased, disabled, or dying prior to slaughter), goats, pigs, horses, rats, misc. roadkill, animals euthanized at shelters and so on. It can also include pus, cancerous tissue, and

decomposed (spoiled) tissue.

Pork & Bone
Meal

AAFCO: The rendered product from pork tissues, including bone, exclusive of any added blood, hair, hoof, skin, manure, stomach and rumen contents, except in such amounts as may occur unavoidably in good processing practices.

A byproduct made from pork parts which are not suitable for human consumption. It can incorporate the entire pig, including the bones, but the quality cuts of meat are always removed. This is an inexpensive, low quality ingredient used to boost the protein percentage.

Poultry Byproduct
Meal

AAFCO: Consists of the ground, rendered, clean parts of the carcasses of slaughtered poultry, such as necks, feet, undeveloped eggs, and intestines, exclusive of feathers except in such amounts as might occur unavoidably in good processing practices.

The parts used can be obtained from any slaughtered fowl, so there is no control over the quality and consistency of individual batches. Poultry byproducts are much less expensive and less digestible than chicken meat. The ingredients of each batch can vary drastically in ingredients (heads, feet, bones, organs etc.) as well as quality, thus the nutritional value is also not consistent. Don't forget that byproducts consist of any parts of the animal OTHER than meat. If there is any use for any part of the animal that brings more profit than selling it as "byproduct", rest assured it will appear in such a product rather than in the "byproduct" dumpster.

Poultry Meal

AAFCO: The clean combination of poultry flesh and skin with or without bone. Does not contain feathers, heads, feet or entrails. If from a particular source it may state so (i.e. chicken, turkey etc).

Note how in this product the source is not defined as "slaughtered poultry". The manufacturer does not disclose the species (or the mix of species) of the poultry used. The fowl can be obtained from any source, so there is no control over quality or contamination. Any kind of animal can be included: "4-D animals" (dead, diseased, disabled, or dying prior to slaughter), turkey, chicken, geese, buzzard, seagulls, misc. roadkill, birds euthanized at shelters and so on.

Soybean Meal AAFCO: The product obtained by grinding the flakes which remain after removal of most of the oil from soybeans by a solvent or mechanical extraction process.

A poor quality protein filler used to boost the protein content of low quality pet foods. Has a biologic value less than 50% of chicken meal.

Supplements

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.

A highly processed feed-grade supplement to balance the calcium and phosphorus content of a product.

Salt Also listed as Sodium Chloride. A colorless or white crystalline solid, chiefly sodium chloride, used extensively in ground or granulated form as a food seasoning and preservative. May also appear in ingredient list as "Iodized Salt" (iodine supplement added), "Sea Salt" (as opposed to salt mined from underground deposits) or "Sodium Chloride" (chemical expression).

While salt is a necessary mineral, it is also generally present in sufficient quantities in the ingredients pet foods include. Just like for humans, too much sodium intake is unhealthy for animals. In poor quality foods it is often used in large amounts to add flavor and make the food more interesting.

Mineral Oil Any of various light hydrocarbon oils, especially a distillate of petroleum.

Mineral oil functions as a laxative and stool softener. I have not found any evidence of any other health benefits. Tells a lot about the product it is used in, doesn't it?

Yeast Culture AAFCO: The dried product composed of yeast and the media on which it is grown, dried in such a manner as to preserve the fermenting activity of the yeast.

An unnecessary, feed-grade ingredient in pet foods, added mainly as a flavoring to make inexpensive food more attractive. Lacks the

nutritional value of higher quality yeast supplements. The media on which the yeast was grown is not identified. Also a potential allergen for some dogs.

Yeast
Fermentation
Solubles

AAFCO: The soluble portion of yeast (*Saccharomyces cerevisiae*) and the media in which is produced.

A feed-grade ingredient in pet foods, added as a vitamin B supplement. It is harmless, but lacks the nutrients of higher quality yeast supplements. The media on which the yeast was grown is not identified. Also a potential allergen for some dogs.

Sweeteners

Cane Molasses

AAFCO: A by-product of the manufacture of sucrose from sugar cane. It must contain not less than 43% total sugars expressed as invert.

Sugar or sweetener is an absolutely unnecessary ingredient in pet foods, added to make the product more attractive. Continuous intake can promote hypoglycemia, obesity, nervousness, cataracts, tooth decay, arthritis and allergies. Pets also get addicted to foods that contain sugars, so it can be a tough piece of work to make them eat something healthier.

Corn Syrup

A syrup prepared from cornstarch, used in industry and in numerous food products as a sweetener.

Sugar or sweetener is an absolutely unnecessary ingredient in pet foods, added to make the product more attractive. Continuous intake can promote hypoglycemia, obesity, nervousness, cataracts, tooth decay, arthritis and allergies. Pets also get addicted to foods that contain sugars, so it can be a tough piece of work to make them eat something healthier.

Fructose

A very sweet sugar, $C_6H_{12}O_6$, occurring in many fruits and honey and used as a preservative for food and as an intravenous nutrient.

A monosaccharide found naturally in fresh fruit and honey. It is obtained by the inversion of sucrose by means of the enzyme invertase. Used in small quantities it serves as a nutrient for

probiotics, specifically bifidobacteria, which ferment it and produce beneficial enzymes.

Sorbitol

A white, sweetish, crystalline alcohol, C₆H₈(OH)₆, found in various berries and fruits or prepared synthetically and used as a flavoring agent, a sugar substitute for people with diabetes, and a moisturizer in cosmetics and other products.

Sugar or sweetener is an absolutely unnecessary ingredient in pet foods, added to make the product more attractive. Continuous intake can promote hypoglycemia, obesity, nervousness, cataracts, tooth decay, arthritis and allergies. Pets also get addicted to foods that contain sugars, so it can be a tough piece of work to make them eat something healthier.

Sugar

Can include sucrose, cane sugar, caramel, corn syrup and others.

Sugar or sweetener is an absolutely unnecessary ingredient in pet foods, added to make the product more attractive. Continuous intake can promote hypoglycemia, obesity, nervousness, cataracts, tooth decay, arthritis and allergies. Pets also get addicted to foods that contain sugars, so it can be a tough piece of work to make them eat something healthier.

DI-Alpha
Tocopherol
Acetate

Synthetic vitamin E, also listed as DI-Alpha Tocopheryl Acetate

Only about half as effective as natural vitamin E and not as readily available to the body.

Vitamins

Menadione
Sodium Bisulfate

Vitamin K₃, synthetic vitamin K.

Feed grade. Also listed as Menadione Dimethyl-Pyrimidinol Bisulfate, Menadione Dimethyl-Pyrimidinol Bisulfite, Menadione Sodium Bisulfate Complex, Menadione Sodium Bisulfite and Menadione Sodium Bisulfite Complex.

Unnecessary ingredient in dog food. This synthetic version of vitamin K has not been specifically approved for long term use, such as in pet food. It has been linked to many serious health issues. [More Details](#)

Source : dogfoodproject.com