EDIBLE DOG TOY TREAT

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An edible dog toy treat in the shape of a ball not to exceed 3 inches comprised of natural ingredients rich in vitamins and minerals to promote healthy teeth and skin. The Crunchy texture will help remove plaque and tarter. No artificial colors or preservatives.
EDIBLE DOG TOY TREAT

BACKGROUND OF THE INVENTION

[0001] The invention relates to an edible dog toy treat in the shape of a solid ball—not to exceed three inches—such as a golf ball—providing exercise for health as it is rolled across the floor and chased by the pet. Once retrieved, the edible dog toy treat can be consumed by the pet as a nutritious vitamin snack. The edible dog toy treat is comprised of all natural ingredients rich in vitamins and minerals to promote a healthy skin and coat. The crunchy texture will promote healthy gums and teeth while removing plaque and tartar. Most pets are playful in nature which endures the pet to the pet owner. As a pet expends its playful energy on a pet chew, the pet is less inclined to destructively chew household objects. Exercise, chewing and playing is an important role in any dogs life. An additional benefit of the edible dog toy treat is it provides a means of play, exercise and bonding with its owner well as providing a vitamin enhanced snack consisting of all natural ingredients.

SUMMARY OF INVENTION

[0002] The present invention is directed as an edible dog toy treat in the shape of a ball providing exercise through play with the advantage of being an edible vitamin enhanced dog treat made of natural ingredients to provide a healthy coat and skin, as well as a crunchy texture to promote reduction of plaque and tartar to promote healthy teeth and fresh breath. This edible vitamin enriched toy for canines is made of all natural ingredients consisting of: Wheat Flour, Poultry Meal, Ground Wheat, Ground Corn, Wheat Bran, Potassium Chloride, Vitamin A-Acetate, D-Activated Animal Sterol (Source of Vitamin D3), Vitamin E Supplement, Vitamin B12 Supplement, Manganese Oxide, Thiamine Mononitrate, Riboflavin, Niacin, Calcium Pantothenate, Pyridoxine Hydrochloride, Folic Acid, Biotin, Copper Sulfate, Choline Chloride, Calcium Iodate.

[0003] Crude Protein (min.) . . . 18.0%
[0004] Crude Fat (min.) . . . 5.0%
[0005] Crude Fiber (max.) . . . 3.0%
[0006] Moisture (max.) . . . 10.0%
[0007] Ash (max.) . . . 8.5%
[0008] Calcium (min.) . . . 0.6%
[0009] Phosphorus (min.) . . . 0.5%
[0010] Vitamin A (min.) . . . 5,000 IU/kg
[0011] Vitamin D3 (min.) . . . 500 IU/kg
[0012] Vitamin E (min.) . . . 50 IU/kg
[0013] Thiamine (B1) (min) . . . 2.0 mg/kg
[0014] Riboflavin (B2) (min) . . . 3.0 mg/kg
[0015] Pantothenic Acid (min.) . . . 10.0 mg/kg
[0016] Niacin (min.) . . . 0.0 mg/kg
[0017] Pyridoxine (B6) (min) . . . 0 mg/kg
[0018] Folic Acid (min.) . . . 0.25 mg/kg
[0019] Biotin (min.) . . . 0.15 mg/kg
[0020] Vitamin B12 (min.) . . . 0.03 mg/kg
[0021] Choline (min.) . . . 1200 mg/kg
[0022] It should be understood that the examples and embodiments described herein are for illustrative purposes only and that various modifications or changes in light thereof will be suggested to persons of skill to contain palatability co-factors which render the enhancement to the health of the canine.

[0023] For palatability and vitamin retention the edible toy treat will be processed through a extrusion process. This process pushes the product through a die plate into the shape of the toy. There are three parts to the process: an extruder to melt and mix the ingredients, a die which shapes the item and down stream equipment which maintains the objects proper shape. The die shapes the extruded part to a preliminary form. The down stream equipment sizes and cools the product to its final form. The extruder consists of a steel tube surrounding a auger screw. The screws turn and the ingredients are compressed. Through compression and moisture the ingredients are drawn toward the die by the rotating auger screw. Toward the end, the auger screws acts as a positive pump forcing the ingredients through the dies restricted opening. The ball shaped die which is bolted to the end of the extruder, constrists the ingredients and forces it into the shape of the product. While in the die, the ingredients are under pressure which often exceeds 1,500 pounds per square inch. This compresses and producing stress. When the materials leaves the die, it's called the extrudate. The downstream process of this production procedure enables a consistent shape. After the ball shaped item leaves the die, it is drawn down by a conveyor and air cooling system. The rate of take off by the conveyor system influences the dimensions of the final part. The conveyor typically pulls the extrudate away from the die. By changing the speed at which the conveyor pulls the product, it's possible to control the final dimension of the part. Usually the die opening will be larger than the finished part. The downstream of the equipment also includes fixtures. The fixtures can be rollers, templates, water tanks or lever. The extrudate may also be cool with air. Ultimately, the down stream equipment controls the final shape, surface finish while it provides cooling time.

1. U.S. Pat. No. 5,941,197 is a chew toy having a substantial component of carrot matter wherein such carrot matter, in dried and powdered or granulatation form, is melted as it is injection molded. The process provides a chew toy with a consistency and chewability preferred by most dogs that is not attainable by known prior art baking or compression molding techniques. The dog chew is easily digestible, supplies nutrients to the dog and is composed of natural ingredients. The molded dog chew massages a dogs teeth and gums thereby inhibiting the formation of plaque.

U.S. Pat. No. 6,428,817 is a companion animal therapeutic treat in the form of a jerky stick of treat for companion animals which includes sea cucumber fraction alone or in combination with glucosamine sulfate and/or glucosamine hydrochloride, and/or sea vegetables, and/or green tea; such jerky stick containing an effective amount of sea cucumber material for the inhibition or modulation of arthritic or nutritional problems in dogs, cats, and containing palatability co-factors which render the jerky stick attractive to the
animal in need. The treat addresses the problem of administration of anti-inflammatory treatments, specifically: sea cucumber products, glucosamines, kelps and green tea extracts by incorporating them into jerky treat with co-factors addressing the need to make a total product palatable to the animal in need.

U.S. Pat. No. 6,455,083 presents an edible thermoplastic and nutritious pet chew made from about 30 to 50 wt. % protein comprising a mixture of plant and animal derived protein, about 20-50% starch about 10 to 20 wt. % water, about 1 to 10 wt. % edible fiber, and about 0.5 to 3 wt. Metallic salt hydrate. When molded, the thermoplastic has good strength and stiffness and other physical properties. The edible thermoplastic may be molded in a variety of shapes including a segmented nutritional pet chew with a plurality of segments separated by a plurality of scores. The scores serve to structurally weaken the pet chew so that it may be broken into small pieces. When molded the edible thermoplastic as a density of about 1.2 to 1.5 g/cubic centimeters. The invention related to edible thermoplastics. More particularly to a pet chew made from an edible, protein-based nutritious thermoplastic and methods of use thereof. In certain embodiments the thermoplastic contains a hygiene additive to clean and care for the pets mouth.

U.S. Pat. No. 5,200,218 is a composition for dog food formula comprising the following ingredients: brewer's yeast, bran, biscuit mix, water, desiccated liver, safflower or corn oil, ascorbic acid and chelated zinc. Additional ingredients may also be included such as bone meal, lecithin oil, wheat germ oil, soy oil, wheat flour, honey and flavorings such as meat or fish. The composition and supplements of ingredients improves and maintains the dogs overall health and is in the form of a moist cookie. The dog food composition further consists of additional ingredients selected from the group consisting of bone meal, lecithin oil, wheat germ oil, soy oil, wheat flour, honey and flavors of meat or fish. A dog needs the correct balance of stated items and used as a supplement to a dogs daily diet to ensure that the dog receives a wide range of generously proportioned and nutritious ingredients.

U.S. Pat. No. 6,672,252 relates to a ductile pet chew having inclusions, preferably a tooth-cleaning component, and a method for forming the pet chew. In particular, the pet chew is formed from a ductile substrate material and either a fibrous component, hard component or both. The present invention relates to a pet chew composition formed from a substrate material and an amount of an inclusion component, wherein the pet chew is ductile so that an animal’s teeth, in particular, a dogs teeth, can penetrate into the chew. The inclusion is preferably a tooth-cleaning component. The chew is such that it does not readily crumble, break or tear, but requires multiple chews or compressions to break down. It can be selected from protein polymers, starch polymers, plastic polymers, rubber, non-digestible natural products, and other human—made materials. Such polymers are, typically, readily digestible by the animal. The protein polymers may be derived from protein fractions found in wheat, soy, corn barley, and other types of seeds, vegetables, or plants.

U.S. Pat. No. 5,501,868 is an extruded dog treat food product which is extruded from a nutritionally balanced mixture of carbohydrate, protein, fat, vitamins and minerals. The dog treat food product exhibits improved resistance to breakage on impact. An extruded dog treat food product which exhibits strong structural integrity and resistant to breakage, wherein an ingredient mixture of carbohydrate, fat, protein, and nutritional balancing ingredients such as vitamins and minerals are extruded as a continuous strand of shaped product in a expanded condition. The extruded food product of the present invention is a solid, uniform, expanded composition.

U.S. Pat. No. 4,892,748 low calorie pet treat is composed of food grade cellulose, a unique binder system holding the matrix, a combination of various color and flavor ingredients and salt. The product contain few calories and can be consumed in large quantities without contributing to an obesity problem. The product is designed to compete with existing pet treats such as dog jerky, biscuits and bones shaped treats and it is preferably amenable for use as a very few calorie pet food. The product provides a singularly low caloric treat for a dog.

U.S. Pat. No. 5,673,653 demonstrates chew toys for domestic carnivorous animals having rawhide and jerky sheets or members. The jerky sheets are wrapped in rawhide sheet by either rolling for folding. This provides an outer layer of rawhide containing jerky therein. The benefits of the jerky and the rawhide are maximized throughout the entire chewing process of the chew toy. Dogs are highly attracted to the scent and taste of jerky, which causes the dog to chew on the rawhide for extended periods of time. This satisfies the dogs instinctive urge to chew, channeling it in a healthy direction, while simultaneously reducing the tarter on their teeth.

U.S. Pat. No. 6,098,571 demonstrates a pet toy amusement device which self regulates the delivery of a pet treat of a selected size and shape comprising an inner housing for containing the pet treat of a selected size and shape, the housing and dispensing a treat. The prior art reveals a variety of devices for play with animals and to teach them various behaviors, including such things as chewable toys, plastic bones, artificial animals, and Frisbee™ devices. In addition, artificial mice, rubber and plastic balls, rattles, bells and stuff articles such as balls and bags stuff with cloth and catnip are some of the types of conventional pet toys currently in use. The inventor incorporates the above-cited patents into this specification.

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