



# PUPPY GOLD®

*Health Formula for Puppies and Mother*



K9 Power **Puppy Gold**® is formulated to provide key ingredients that are critical to optimal development in the early months of a dog's life. The reality is that most puppies do not get the opportunity to nurse for as long as nature intended. **Puppy Gold**® is formulated similarly to canine mothers' milk to support your puppy's development after weaning. The canine mother, too, benefits from ingestion of **Puppy Gold**® throughout the course of gestation and lactation.

- + Helps Support the Needs of Developing Puppies
- + Fortified with Colostrum
- + Beneficial for Both Puppies and Mothers
- + Provides Immune System and Organ Support

## Product Facts

**Active Ingredients per 10 g scoop: 45 scoops per container. Scoop included.**

Milk protein isolate .....	2,564 mg
Colostrum (bovine source) .....	1500 mg
Salmon oil powder .....	700 mg
Collagen (chicken source) .....	500 mg
Glucosamine (bovine source) .....	500 mg
Creatine (as monohydrate) .....	300 mg
ProbioSEB Duo™* .....	200 mg ( <i>Bacillus subtilis</i> , <i>Bacillus coagulans</i> , <i>Lactobacillus sporogenes</i> )
Safflower oil powder .....	200 mg
Conjugated linoleic acid .....	200 mg
Glycine .....	133 mg
Hyperimmunized egg powder .....	100 mg
Potassium chloride .....	90 mg
Sodium chloride .....	80 mg
L-glutamine .....	6 mg
L-taurine .....	2 mg

\*20 billion CFU/g: contains *Bacillus subtilis* (8 billion CFU/g) and a mixture of *Bacillus coagulans* and *Lactobacillus sporogenes* (12 billion CFU/g).

**Inactive Ingredients:** Maltodextrin, mixed tocopherols, pork liver powder, whey protein concentrate.



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## PUPPY GOLD® INGREDIENT PANEL

- Dogs that are healthy throughout their lifetime often are those that were exposed to optimal nutrition right after weaning. A good quality complete and balanced puppy food is essential to get the puppy off to a good start in life, but a good quality supplement can complement the effects of the food. Our next generation Puppy Gold® is such a supplement. It contains numerous ingredients not found in the food but that work in synergy with the food ingredients to provide the best nutrition possible.
- We start with **milk protein isolate**, a blend of casein and whey proteins that contains 90% crude protein (minimum) and approximately 3% fat. The casein component is more slowly digested than is the whey, providing a slow and steady release of amino acids into the body. **Milk protein isolate** is a completely balanced protein that contains the branched-chain amino acids important for optimal muscle growth and activity. It also has been shown to increase bone density by promoting bone growth and preventing bone breakdown, and it has anti-inflammatory and immunomodulatory effects in the body.
- Next highest in concentration is **colostrum**, the initial immunity shield that transfers passive immunity from the mother to the young and that allows them to fend off pathogens in their external environment. **Colostrum** provides components that accelerate and support the development of the puppies own immune defenses (the innate immune system). In addition, the shield between the intestinal lumen and the internal organs of the puppy or the intestinal epithelial barrier and mucosa is strengthened. **Colostrum** also supports the establishment of the proper mix of beneficial microbiota in the large intestine. Commercially available bovine **colostrum** contains immune factors (e.g., lactoferrin, lysozyme), growth and repair factors (e.g., insulin-like growth factor, epidermal growth factor), immune modulators (anti-viral, anti-bacterial), oligosaccharides (natural prebiotics), and antibodies.
- **Salmon oil powder** is a rich source of omega-3 fatty acids that are anti-inflammatory and that play a role in optimal health of the heart, liver, brain, and nervous system of the puppy. The primary omega-3 fatty acids found in **salmon oil powder** are eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). Research has linked these two fatty acids to a variety of health benefits as they suppress the body's inflammatory response by reducing concentrations of pro-inflammatory chemicals produced by the immune cells. Two other fat sources present in



Puppy Gold® complement this ingredient. These include **safflower oil powder** that contains high concentrations of the omega-6 fatty acid, linoleic acid. It has been shown to optimize the circulation of blood throughout the body, to support immune function, and to enhance muscle growth. A purified form of **conjugated linoleic acid** is added to Puppy Gold® to ensure adequate concentrations of bioavailable **linoleic acid**.

- **Collagen** is the most abundant protein in the body, accounting for ~30% of its total protein. It is the primary building block of skin, muscle, bone, tendon, ligaments, other connective tissues, organs, blood vessels, and intestinal lining. The main amino acids that make up **collagen** are proline, glycine, and hydroxyproline. The main role of **collagen** is to provide structure, strength, and support throughout the body. **Collagen** cannot be absorbed in its whole form; rather, it must be broken down into smaller peptides or amino acids that can be absorbed. Oral **collagen** supplements come in the form of powders that usually contain the amino acids listed above and that exist as collagen peptides or hydrolyzed collagen that can be absorbed in the gastrointestinal tract.
- **D-glucosamine sulfate** is derived from shellfish. The sulfate form is better absorbed and stimulates production of glycosaminoglycans (GAGs), nutrients that stimulate the formation of articular cartilage, a type of smooth white tissue that covers the ends of the bones where they meet to form joints. **D-glucosamine sulfate** is thought to promote the creation of certain chemical components, including **collagen**, that are important structural components of articular cartilage and synovial fluid.
- Select amino acids are important to ensure optimal health of the puppy. **Creatine monohydrate** is an amino acid that helps facilitate recycling of ATP in muscle and brain tissue. It has many roles, two of which are important for the puppy and the mother: (a) it contributes to increased muscle mass; and (b) it supports cognitive function. **Glycine** promotes collagen formation and promotes nerve signal transmission. **L-glutamine** optimizes the health and function of the gastrointestinal tract. It also is used to promote muscle growth. Finally, L-taurine enhances cardiac, ocular, and cognitive function.
- **ProbioSEB Duo™** is a synbiotic with a variety of probiotic microorganisms along with the prebiotic, short-chain fructooligosaccharides. In this case, the probiotic organisms include *Bacillus subtilis*, *Bacillus coagulans*, and *Lactobacillus sporogenes*, three microbes believed to contribute to gut and immune health. The prebiotic component serves as a readily available food supply for the probiotic microbes in the ingredient, in addition to those healthful microbial species residing in the gut. Synbiotics support and enhance the resident microbiota in the large intestine of the dog and, as a result, positively impact immune health and cognitive function. Inclusion of this ingredient in a puppy supplement helps to ensure a stable and healthful gut microbiota from very early in life. In addition it helps stabilize digestive, immune, and cognitive health of the mother should she be provided with the supplement.



- **Hyperimmunized egg** contains two major categories of immune components: (a) immunoglobulins that diminish pathogens, thus providing protection against gastrointestinal problems, and (b) immunoregulatory factors that directly affect gastrointestinal surfaces and that circulate systemically, thus affecting every immune, metabolic, and neuroendocrine pathway in the body.
- **Potassium chloride/sodium chloride** (electrolytes) are highly bioavailable forms of sodium and potassium. They play key roles in contraction of cardiac and skeletal muscle. They serve to maintain a healthy water balance and a healthy blood flow in the body of the puppy and mother.
- While the **active ingredients** are the most important components of the next generation Puppy Gold® supplement, the **inactive ingredients**, too, contribute to its excellent nutritional quality. For example, **maltodextrin** provides a highly digestible source of energy to both puppy and mother, both of whom have high energy demands. A blend of natural **mixed tocopherols** serves to neutralize free radicals formed in the body as a result of metabolic processes. They also provide emulsifiers and chelating agents for complete protection against rancidity, thus contributing to supplement stability and shelf-life. **Pork liver powder** contributes to the desirable taste of the supplement. **Whey protein concentrate**, which contains some carbohydrate (i.e., lactose) and fat, also provides branched-chain amino acids (e.g., leucine, isoleucine) important for optimal muscle growth and activity. In addition, it has been shown to increase bone density by promoting bone growth and preventing bone breakdown.