

Brief

ACTIVE INGREDIENTS: All of our active ingredients are casein free, gluten free, and sugar free. Unless otherwise noted, they are also free of soy, corn and starch.

INACTIVE INGREDIENTS IN KIRKMAN SUPPLEMENTS

Almost all nutritional supplements must contain some inactive ingredients to facilitate quick dissolution, better taste, resistance to moisture, low friability of tablets (so they don't crumble in the bottle), good stability and other desirable pharmaceutical qualities. These inactive ingredients are called excipients and are listed on labels as "other ingredients". All of the excipients used by Kirkman are gluten free, casein free, and sugar free. No artificial flavors or colorings are used. Unless noted otherwise, they are also free of soy, corn and starch. Kirkman's hypoallergenic line has the fewest additives and is normally suitable for the most sensitive individuals. Most products in the hypoallergenic line have only cellulose (from pine) as an additive. Even the capsules are from pine cellulose. Occasionally an additional lubricant or moisture retardant must also be used. These are always listed on the label.

Detailed

ACTIVE INGREDIENTS:

Vitamins	All synthetically manufactured
Minerals	Synthetic or mined and purified
Amino Acids	All synthetically made---no animal sources
Enzymes	All plant based---no animal sources
Melatonin	Synthetically made---no animal sourcing
CoQ10	Synthetically made---no animal sourcing
DMG and TMG	Synthetically made---no animal sourcing
Colostrum	United States cows only
Cod Liver Oil	Norwegian and Arctic Cod only
Fish Oil Products	Deep water, cold water fish
Flaxseed	Specially processed in Canada
Cranberry	United States grown only
Herbs	Approved growers only---some imports
Probiotic	Plant and Animal Proteins
MSM	Synthetically manufactured
Alpha ketoglutaric acid	Synthetically manufactured
Chelation Products	All synthetically manufactured
Hard Shell Capsules	Plant cellulose (from pine)
Soft Gel caps (CLO)	Beef or pork gelatin

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Here are a list of inactive ingredients used by Kirkman Laboratories and their particular use and source:

Apple Pie Spice---A natural CF/GF spice used in some of Kirkman's Fortified Food Line.

Baking Powder---A leavening agent used in Kirkman's Food Line. Contains sodium bicarbonate, calcium carbonate, sodium aluminum sulfate and calcium phosphate.

Baking Soda---A leavening agent used in Kirkman's food line. Contains sodium bicarbonate.

Calcium Caprylate---A source of caprylic acid and sometimes also used as a tablet or capsule lubricant.

Calcium Sulfate---A filler and tabulating aid which also can contribute calcium to a product.

Citric Acid---An acidifier used to enhance the taste of natural fruit flavors. It is synthetically manufactured and does not come from citrus fruits.

DiCalcium Phosphate---An inert tablet and capsule filler and binder. Kirkman uses only a highly purified lead free form which can also contribute calcium to a product.

Editate Sodinate---Also known as EDTA, this chelation agent is used in some products to complex metal impurities present in water, so these impurities do not change the color of the solution or cause unwanted precipitation.

Fructose---A natural fruit sugar used for flavoring certain products. Though fructose is considered a sugar, it does not induce the undesirable characteristics that table cane sugar does.

Glycerine---A clear, odorless, sweet syrupy liquid used in nutritional supplements and pharmaceuticals as a carrier, sweetener and humectant. Glycerine is a by product of the hydrolysis of fats and oils. Kirkman only uses vegetable grade glycerine which is generally sourced from coconut. Glycerine is a very safe additive.

Guar Gum---A natural viscosity boosting gum derived from the plant *C. tetragonolobus*. Used to increase the consistency of products to improve stability and texture.

Inulin---Naturally derived probiotic base derived from the chicory root. It is considered an oligosaccharide and is resistant to utilization by pathogenic bacteria. It is a very safe, well tolerated probiotic base which also contributes growth factors.

L-Leucine---A synthetically produced amino acid which also is used as a capsule lubricant.

Magnesium Stearate---A tablet and capsule lubricant having an alkaline pH. Kirkman only uses vegetable grade magnesium stearate which is sourced from the sego palm. It is used only in minute, safe levels in Kirkman products.

Maltodextrin---A corn derived filler or carrier for flavored products or flavoring ingredients.

Methyl Paraben---An antimicrobial and mold inhibitor used as a preservative in cosmetic products.

Natural Flavorings---Flavoring agents which are manufactured from natural fruits and other natural ingredients. These flavors do not contain the potentially toxic chemicals found in artificial flavors.

Plant Cellulose---A filler and binder used in making tablets and capsules. An inert substance derived from tree cellulose. Often from pine trees.

Polysorbate 80---An FDA approved solubilizer and emulsifier for oily components of formulations. The vitamin E in liquid Super Nu-Thera® is solubilized by this ingredient.

Polysorbates are manufactured by esterifying sorbitol with a fatty acid. This ingredient has been used in the pharmaceutical industry for decades.

Propylene Glycol---Approved by the FDA and the American Pharmaceutical Association as a carrier, solubilizer, and stabilizer for drugs and nutritional supplements. It is in the same family of substances as Glycerin, and is actually considered safer than glycerin. It is synthetically manufactured by chemical hydrolysis. This is an often misunderstood additive in pharmaceuticals because of its uses in other industries. Propylene Glycol has a freezing point of -59 degrees C. This makes it useful in de-icing airplanes during the winter. For this reason some people wrongfully think this a harmful chemical, which is not the case at all. Propylene Glycol has been used safely in the pharmaceutical industry for decades.

Propyl Paraben---An antimicrobial and mold inhibitor used as a preservative in cosmetic products.

Rice Powders---CF/GF bulking agents for food products.

Sodium Benzoate---A preservative used in foods and pharmaceuticals.

Sodium Citrate---A citric acid derived buffering agent used to control the pH of pharmaceutical products.

Sodium Starch Glycolate---A corn starch derived disintegration and dissolution agent used in tablets, capsules and powders.

Sorbitol---A pharmaceutical sweetener, humectant, solubilizer and carrier manufactured by the hydrogenation of glucose. In the very beginning of preparation, Sorbitol has a corn fraction.

This becomes far removed as processing is completed and most corn sensitive individuals don't react to sorbitol. Very corn sensitive individuals should proceed cautiously.

Stearic Acid---A tablet and capsule lubricant prepared by the hydrolysis of fat. Kirkman uses only vegetable grade stearic acid usually sourced from coconut or palm.

Sucralose---A sweetener manufactured by the McNeil Division of Johnson and Johnson. The starting ingredient is natural sugar, which is then put through a multi-step patented process that selectively replaces three hydrogen-oxygen groups on the sugar molecule with three chlorine atoms. Over 100 scientific studies world wide over a twenty year period, clearly demonstrate the safety of sucralose which is 600 times sweeter than sugar. Sucralose is available in super markets under the name Splenda. Splenda contains dextrose, however. The Sucralose Kirkman uses is the pure form without the added dextrose. Sucralose is approved for safe use in over 25 countries. Sucralose is not metabolized by microorganisms, has no calories and does not support tooth decay.

Silica---Also known as silicon dioxide or Syloid. This moisture retardant is used in products to keep powder or capsules dry and keep them from getting sticky or lumpy. Chemically, this excipient can be considered highly purified ground sand.

Tapioca Flour---A CF/GF carrier or filler.

Xanthan Gum---A natural product used to increase viscosity or consistency in baking or in nutritional and drug products.