

Products of Corn

Cornstarch	Corn Syrup	Industrial Uses
<p><i>Industrial Uses</i></p> <p>Abrasive paper and cloth Adhesives (glues, mucilages, gums, etc.) Batteries, dry cell Binder or binding agents Board (corrugating, laminating, solid fiber-board, cardboard) Boiler compounds Bookbinding Briquettes Ceramics (as clay binder) Chemicals Cleaners, detergents Coatings on wood, metal and paper Color carrier (in paper and textile printing) Cord polishing, sizing Cork products Crayon and chalk (as a binder) Dispersing and standard-izing agent Dressing, surgical Dyes (as a bodying agent, carrier diluent, etc.) Fermentation processes Fiberglass size Fireworks Insecticide powders Insulating material (glass wool, rock wool, etc.) Lubricating agents Oilcloth Oil-well drilling (drilling mud) Ore refining (electrolytic reduction process, flotation process, etc.) Paints (cleaning compounds, cold-water and latex paints, poster lacquers, etc.) Paper and paper products manufacture Plastics (molded) Plywood (interior) Printing Protective colloids (emulsions) Textiles (warp sizing and finishing) Tile, ceiling Tires, rubber Wallboard and wallpaper Water recovery, industrial</p> <p><i>Food, Drug or Cosmetic Uses</i></p> <p>Antibiotics Aspirin Baby foods Bakery products (bread, rolls cakes, pies, crackers and cookies) Baking powder Beverages, brewed (beer, ale, etc.)</p>	<p><i>Industrial Uses</i></p> <p>Adhesives (plasticizing agent) Chemicals Dyes and inks Explosives Leather tanning (chrome process) Metal plating Paper, glassine and parchment Plasticizer Polish, shoe Rayon (viscose process) Textiles, for finishing Theatrical makeup Tobacco and tobacco products</p> <p><i>Food, Drug Uses; liquid or dried form</i></p> <p>Baby foods Bakery products (bread, rolls, biscuits, doughnuts, pies, cakes, cookies, pretzels, etc.) Beverages, brewed (beer, ale, etc.) Beverages, carbonated Breakfast foods Catsup, chili sauce, tomato sauce Cereals, prepared Cheese spreads and foods Chewing gum Chocolate products Coffee whiteners Condensed milk, sweetened Confectionery Cordials and liqueurs Desserts Eggs, frozen or dried Extracts and flavors Frostings and icings Fruit butters and juices Fruit drinks Fruits (canned, candied, fillings, frozen, etc.) Ice cream, water ices and sherbets Jams, jellies, marmalades and preserves Licorice Malted products Marshmallows and related products Meat products (sausage, etc.) Medicinal preparations (drugs, pharmaceuticals) Mixes, prepared (cakes, infant foods, pie fillings, pudding, powders, ice cream, etc.) Peanut butter Pickles and pickle products Salad dressing Sauces (seasoning, specialty, etc.)</p>	<p><i>Industrial Uses</i></p> <p>Acids, commercial (lactic, acetic, gluconic, etc.) Adhesives Amino acids Chemicals (calcium, lactate, sodium lactate, etc.) Citric Dyes Electroplating and galvanizing Enzymes Lactic acid polymers Leather tanning Lysine Mannitol Paper manufacturing Rubber (cold process) Sizing materials Sorbitol Textiles, dyeing and finishing Threonine Tryptophan</p> <p><i>Food, Drug Uses</i></p> <p>Antibiotics Baby foods Bakery products (biscuits, bread, crackers, fillings, icings, macaroons, pretzels, cookies, crackers, wafers, etc.) Berries, canned and frozen Beverages, brewed (beer, ale, etc.) Beverages, carbonated Breakfast foods Caramel color Cheese foods and spreads Chewing gum Chocolate products Citric acid Citrus juices Coloring, pure food mix Condensed milk Confectionery Cordials, liqueurs and brandy Cream, frozen Dairy products Desserts Dietetic preparations Distillation products Doughnuts (cake, yeast) Drugs (fermentation process) Eggs, frozen or dried Fish, pickled Flavoring extracts Food acids (citric, etc.) Fruit juices Fruits and vegetables (canned) Fruits (candied, glace, frozen)</p>



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<p>Chewing gum Chocolate drink Confectionery Cosmetics Desserts (puddings, custards, etc.) Drugs and pharmaceuticals Flours, prepared (including prepared mixes) Food and drug coatings Gravies and sauces Meat products Mixes, prepared (pancake, waffle, cake, candy, etc.) Mustard, prepared Pie filling Precooked frozen meals Salad dressing Soaps and cleaners Soups Sugar, powdered Vegetables, canned Dextrins Industrial Uses Adhesives (glues, pastes, mucilages, gums) Bookbinding Briquettes Candles Ceramics Cord polishing Core binder (castings, molds, etc.) Cork products Crayon and chalk (as a binder) Dyes (dry, cake, etc.) Envelopes Fireworks Inks, printing Insecticides Insulation, fiberglass Labels Leather Linoleum Magazines Matches (on head and side of box) Oil-well drilling Ore separation Paints (cold-water, poster, etc.) Paper and paper products Plastics (molding) Plywood Sandpaper Shoes (counter pastes, polish, etc.) Silvering compounds Soaps Straws (drinking) Textiles, sizing, finishing and printing Twine (cord, string, etc.) Wallboard and wallpaper Window shades and shade cloth</p>	<p>Seafood, frozen Soups, dehydrated Syrups (table, chocolate, cocoa, fruit, medicinal, soda fountain, cordials, etc.) Toppings Vinegar</p> <p>High Fructose Corn Syrup</p> <p>Food Uses Bakery products Canned fruits Canned juices Condiments Confectionery products Frozen desserts Jams, jellies and preserves Soft drinks Wine Yeast</p> <p>Maltodextrins Food Uses Bakery mixes Beverage powders Condiments Dehydrated foods Dry soup mixes Gum confections Icings and glazes Instant tea Instant breakfast foods Low calorie sweeteners Marshmallows Nougats Pan coatings Sauce and gravy mixes Snack foods</p>	<p>Gelatin desserts Ice cream, water ices and sherbets Infant and invalid feeding Jams, jellies, marmalades and preserves Lactic acid Meat products (bacon, bologna, hams, sausage, frankfurters, mincemeat) Medicinal preparations and intravenous (injections, pills, tablets, drugs, etc.) prepared (cake, icings and frosting, infant foods, pie fillings, toppings, etc.) Peanut butter Peas, canned Pectin, fruit Pickles and pickle products Prepared mixes Powders (ice cream, prepared dessert, pudding, summer drink, powders, etc.) Sauces (catsup, tomato, etc.) Seasoning mixes, dry Sorbitol (in candies, toothpaste, etc.) Soups, dehydrated Spices and mustard preparations Syrups (table, fountain, medicinal, etc.) Vinegar Wine Xanthan gums Yeast</p> <p>Hydrol</p> <p>Corn-sugar molasses Leather tanning Livestock feed Organic acids Organic solvents Tobacco</p> <p>Ethanol Alcoholic beverages Industrial alcohol Octane enhancer Oxygenate in motor fuels</p> <p>Personal care products Mouthwash Toothpaste</p>
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Co-Products of Corn

SOLUBLES	GLUTEN AND HULLS	GERM
<p>Steepwater Antibiotics Chemicals Pharmaceuticals Yeast</p>	<p>Steepwater for Feed Gluten Feed and Meal Oil Meal</p> <p>Products Used by Livestock, Poultry and Dairy</p> <p>Corn germ meal Corn gluten feed Corn gluten meal Corn oil by-products Corn sugar (crude and refined) Hydrol (corn-sugar molasses) Steepwater for feed (condensed fermented corn extractives) Corn Germ Meal, Corn Gluten Feed, Corn Gluten Meal Other Uses</p> <p>Amino acids Fur cleaner Zein and other protein products</p>	<p>Corn Oil</p> <p>Corn Oil, Refined <i>Food, Drug Uses</i> Carriers for vitamins and other medicinal preparations in capsule form Cooking oil Margarine Mayonnaise Potato chips Salad dressing Sauces, seasoning Shortening Soups</p> <p>Corn Oil and Free Fatty Acids <i>Industrial Uses</i> Chemicals and insecticides Lecithin (for pharmaceuticals, cosmetics, linoleum, printing inks, etc.) Paint and varnish Rubber substitutes Rust preventative (surface coatings) Soap Soluble oil (leather and tanning use) Textiles</p>



Word Scramble

Unscramble the following list of food items that contain corn.

nroc sekalf	c _ _ _ f _ a _ _ _
cei earcm	_ c _ _ _ _ m
oads	s _ _ _
nuteap ttreub	_ e _ _ u _ _ u _ _ e _
upchket	k _ _ _ h _ _
alads ingsserd	s _ l _ _ d _ e _ _ _ _ g
ylelj	_ e _ _ _
mallmarowssh	_ a _ s _ _ _ _ l _ _ s
meanrirga	m _ _ g _ _ _ _ _
tcoa hipcs	_ a _ o _ _ i _ _



The Four Parts of a Kernel of Corn

THE ENDOSPERM

The endosperm is about 82 percent of the kernel’s dry weight and is the source of energy (starch) and protein for the germinating seed. There are two types of endosperm, soft and hard. In the hard endosperm, starch is packed tightly together. In the soft endosperm, the starch is loose. When corn dries in the field before harvest, the moisture loss causes the soft endosperm to collapse and form a dent in the top of the kernel, thus the term “dent” corn.



THE PERICARP

The pericarp is the outer covering of the kernel that protects it from deterioration. It resists water and water vapor and is undesirable to insects and microorganisms.

THE GERM

The germ is the only living part of the corn kernel. It contains the essential genetic information, enzymes, vitamins and minerals for the kernel to grow into a corn plant. About 25 percent of the germ is corn oil. Corn oil is the most valuable part of the corn kernel. It is high in linoleic fatty acid (polyunsaturated fat) and has a bland taste.

THE TIP CAP

The tip cap is the only area of the kernel not covered by the pericarp. It was the attachment point of the kernel to the cob.

Corn Components	
Starch	61.0%
Feed	19.2%
Oil	3.8%
Water	16.0%



Connect The Dots

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