

ULTRA-SOY®

ULTRA-SOY® Textured Soy Flours & Textured Vegetable Proteins

ULTRA-SOY® Textured Soy Flours & Textured Vegetable Proteins are dry soy products which, when hydrated, have the laminar, fibrous texture of meat. The unique structure and properties of ULTRA-SOY® products enable them to hydrate and retain moisture in rigorous processing and cooking environments.

ULTRA-SOY® Textured Soy Flours & Textured Vegetable Proteins are available in a variety of shapes, sizes, and colors. ULTRA-SOY® products are available in the form of granules, chunks, flakes, and strips in sizes ranging from 1/8" to 1". ULTRA-SOY® products are available in natural tan, light caramel, and dark caramel colors and may be fortified to enhance nutritional content.

Uses

ULTRA-SOY® Textured Soy Flours & Textured Vegetable Proteins can be used as meat extenders in processed meats including ground meat, sausage, pizza topping, taco meat, chili, and precooked and restructured meats. The unique texture of ULTRA-SOY® products helps in binding water and fats in meat processing. This improves the handling properties of the extended meats and the overall product yields.

Health Benefits

ULTRA-SOY® Textured Soy Flours & Textured Vegetable Proteins have 50% protein and less than 1% fat. ULTRA-SOY® products have no cholesterol, saturated fats, or trans fats. The use of ULTRA-SOY® to extend meat improves the nutritional value of the meat product by reducing fat and increasing fiber. Due to the high protein content of ULTRA-SOY® products, ULTRA-SOY® can also be used as a nutritious supplement in snacks and health foods. Studies have shown that soy protein helps in lowering blood cholesterol and, as a result, the FDA has allowed the health claim, "25 grams of soy protein per day as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease".

ULTRA-SOY® Textured Soy Flours & Textured Vegetable Proteins have nearly 17% dietary fiber, a component in food that may be

beneficial in prevention of heart disease and certain types of cancer. ULTRA-SOY® is also a rich source of naturally occurring isoflavones and contains about 2.7 mg isoflavones per gram of product. Isoflavones have been shown to be beneficial in reducing the incidence of breast and prostate cancers.

Process Application

ULTRA-SOY® products are customarily incorporated into food products as follows:

1. ULTRA-SOY® may be added directly to your processing flow.
2. To achieve optimum finished product yield, ULTRA-SOY® may be hydrated at a rate of 1.5 to 3.5 times its weight with water. Hydration rate depends on the type of product used. Adjustments in the amount of water added may be required for specific applications. Contact your CHS - Protein Food Group representative for suggested formulations.

Packaging & Storing

Standard packaging is in 25-pound (11.34 kg) and 50-pound (22.68 kg) poly-lined bags for maximum protection. Under normal dry storage conditions, ULTRA-SOY® Textured Soy Flours & Textured Vegetable Proteins will be stable for at least one year from the date of receipt. Refrigeration is not required. Once hydrated, however, ULTRA-SOY® should be handled like fresh meat.

ULTRA-SOY® Textured Soy Flours & Textured Vegetable Proteins are certified Kosher Pareve under the supervision of the Union of Orthodox Jewish Congregations of America.



2701 E. 11th Avenue
Hutchinson, Kansas 67504-1099
1-800-835-5006
www.chsinc.com

PRODUCT LIST

CODE	TYPICAL SIZE (INCHES)	PIECE SHAPE	COLOR	DENSITY (LBS./CU. FT.)
100 N	¼ to ½	Crumble	Tan	12-20
100 C	¼ to ½	Crumble	Brown	12-20
200 N	⅛ to ¼	Crumble	Tan	15-22
200 C	⅛ to ¼	Crumble	Brown	15-22
300 C	½ to 1	Crumble	Brown	14-21
1500 N	<⅛ to ¼	Crumble	Tan	16-23
1500 C	<⅛ to ¼	Crumble	Brown	16-23
1600 N	<⅛ to ¼	Crumble	Tan	22-30
1600 C	<⅛ to ¼	Crumble	Brown	22-30
2000 N	¾ to 1⅛	Strip	Tan	11-15
2000 C	¾ to 1⅛	Strip	Brown	11-15
2000-10 N	⅛ to ½	Flake	Tan	15-22
2000-10 C	⅛ to ½	Flake	Brown	15-22
2000-20 N	¾ to 1⅛	Strip	Tan	12-18
2000-20 C	¾ to 1⅛	Strip	Brown	12-18
2100 N	¾ to 1⅛	Strip	Tan	11-15
2100 C	¾ to 1⅛	Strip	Brown	11-15
3000 N	⅛ to ¼	Flake	Tan	11-15
3000 C	⅛ to ¼	Flake	Brown	11-15
Chunks 8 N	¼ to ½	Chunk	Tan	22-27
Chunks 8 C	¼ to ½	Chunk	Brown	22-27
Chunks 9 N	¼ to ¾	Chunk	Tan	10-16
Chunks 9 C	¼ to ¾	Chunk	Brown	10-16
Chunks 10 N	½ to 1	Chunk	Tan	10-17
Chunks 10 C	½ to 1	Chunk	Brown	10-17
Minced N	<⅛ to ¼	Crumble	Tan	18-26
Minced C	<⅛ to ¼	Crumble	Brown	18-26
QR 600 N	⅛ to ½	Crumble	Tan	14-20
QR 600 C	⅛ to ½	Crumble	Brown	14-20
QR 700 N	⅛ to ½	Crumble	Tan	15-23
QR 700 C	⅛ to ½	Crumble	Brown	15-23
QR 740 N	<⅛ to ¼	Crumble	Tan	14-25
QR 740 C	<⅛ to ¼	Crumble	Brown	14-25
QR 800 N	<⅛ to ⅛	Crumble	Tan	18-26
QR 800 C	<⅛ to ⅛	Crumble	Brown	18-26

- This is a partial list.
- All of the above products are available in two fortification levels (F or SF) to meet nutritional requirements.
- All of the above products are also available in a light brown color.
- For individual product specifications, please contact Customer Service at stephanie.haden@chsinc.com

ULTRA-SOY®

Typical Nutrition Analysis (per 100 g of Product)

	ULTRA-SOY®	FORTIFIED ULTRA-SOY®	
		SF	F
Calories	279	279	279
Calories from Fat	9	9	9
Total Fat, g	1	1	1
Saturated Fat, g	0.1	0.1	0.1
Trans Fat, g	0	0	0
Cholesterol, g	0	0	0
Total Carbohydrates, g	34	34	34
Dietary Fiber, g	16.5	16.5	16.5
Sugars, g	9.5	9.5	9.5
Protein, g	50	50	50
Moisture, g	9	9	9
PDCAAS*	0.92	0.92	0.92
Minerals			
Total Ash, g	6.23	6.23	6.23
Calcium, mg	244	244	244
Phosphorus, mg	683	683	683
Potassium, mg	2416	2416	2416
Magnesium, mg	294	294	294
Sodium, mg	20	20	20
Iron, mg	9.36	9.73	15.62
Manganese, mg	3.06	3.06	3.06
Zinc, mg	6.1	28	28
Copper, mg	2.32	2.46	2.32
Vitamins			
Vitamin A, IU	41	676	676
Thiamine, mg	0.71	1.04	1.04
Riboflavin, mg	0.26	0.52	0.52
Niacin, mg	2.65	15.6	15.6
Vitamin B6, mg	0.58	1.04	1.04
Vitamin B12, mg	0	5.2	5.2
Vitamin C, mg	0	0	0
Folic Acid, mg	0.31	0.31	0.31
Pantothenic Acid, mg	2.02	2.08	2.08

*Calculated value, based on corrected amino acid scores and a true protein digestibility of 0.85 (FAO/WHO, 1989)

Typical Microbiological Analysis

APC	Less than 10,000/g
Salmonella	Negative
E. coli	Negative

Essential Amino Acids (per 100 g of Protein)

Tryptophan	1.3
Isoleucine	4.4
Leucine	7.4
Lysine	6.1
Methionine	1.2
Cysteine	1.5
Phenylalanine	4.8
Threonine	4.0
Tyrosine	3.5
Valine	4.6
Arginine	7.1
Histidine	2.5

Ingredient Statements

Neutral/Unfortified [N]: Textured soy flour

Caramel/Unfortified [C] and Special Caramel/Unfortified [SC]: Soy flour, caramel color

Neutral/Fortified [N(F)]: Soy flour, zinc oxide, ferrous sulfate, niacinamide, calcium pantothenate, pyridoxine hydrochloride, riboflavin, thiamine mononitrate, vitamin A palmitate, cyanocobalamin

Caramel/Fortified [C(F)] and Special Caramel/Fortified [SC(F)]: Soy flour, caramel color, zinc oxide, ferrous sulfate, niacinamide, calcium pantothenate, pyridoxine hydrochloride, riboflavin, thiamine mononitrate, vitamin A palmitate, cyanocobalamin

Neutral/Special Fortified [N(SF)]: Soy flour, zinc oxide, niacinamide, ferrous sulfate, copper gluconate, vitamin A palmitate, calcium pantothenate, thiamine mononitrate, pyridoxine hydrochloride, riboflavin, cyanocobalamin

Caramel/Special Fortified [C(SF)] and Special Caramel/Special Fortified [SC(SF)]: Soy flour, caramel color, zinc oxide, niacinamide, ferrous sulfate, copper gluconate, vitamin A palmitate, calcium pantothenate, thiamine mononitrate, pyridoxine hydrochloride, riboflavin, cyanocobalamin



Located in Hutchinson, Kansas, CHS - Protein Food Group has over 3 decades of experience in the manufacture of textured soy proteins. CHS - Protein Food Group takes pride in providing innovative solutions, tailor-made to meet customer needs. The product lines include the following:

- **ULTRA-SOY[®]** (unflavored) Textured Soy Flours & Textured Vegetable Proteins in a variety of shapes, sizes, and colors for the food industry
- **ULTRA-SOY[®]** & **IMAGIC[®]** Bacon and Meat Analogs and flavored textured soy products in a variety of shapes, sizes, colors, and flavors
- **TSP[®]** for canned pet foods
- **Curley's[™]** Premium and Extra Premium Barbecue Sauces
- **RK Brand[™]** Barbecue Sauce
- **Lems[™]** Sweet & Sour and Teriyaki Sauces
- Soy flour, soy protein concentrates, textured soy protein concentrates, and soy protein isolates