





Processing and Food Ingredients

WHO WE ARE



- CHS is the nation's leading producer-owned cooperative providing essential energy, grains and foods resources to businesses and consumers around the world.
- A DIVERSIFIED, global energy, grains and food business providing our bounty to businesses and consumers around the world in +/- 60 countries
- Employ more than 11,000 people worldwide

VISION AND OUR OWNERS



600,000+

farmers strong

3,000+

communities we call home

one

cooperative network helping to feed the world

- **CHS economic activity supported more than 60,700 jobs directly and indirectly, far exceeding the company's 12,100 employees.**
- **Vision:**
To be a globally integrated energy, grains and foods system innovatively linking producers with consumers

OUR STORY

- **Serving U.S. farmers, ranchers and rural America for 85 years**
- **We are governed by a 17-member board of farmers and ranchers, who are elected by our cooperative-owners and producer-owners.**



CHS VALUES

We value...

- Our tradition of partnership and shared success
- Building lasting and mutually rewarding customer relationships
- Managing our business with the highest integrity
- Being responsible stewards in our communities
- Our people, and their innovative spirit



THE CHS ADVANTAGE

- We are committed to helping our customers, farmer-owners, and other stakeholders grow their businesses.
- The CHS brand is synonymous with high INTEGRITY and QUALITY standards. Our quality standards & customer care are number one.
- CHS is a fortune 100 company and is ranked number 1 on the national coop list of the top 100 coops in America. We are diversified, and our supply chain is unrivaled in this industry.
- We have the largest and most technologically advanced soy flour mill in the US (Creston).
- CHS is one of the few soy protein manufacturers to become **Non-GMO Project Verified** on our oil, flour, and soy protein isolate.

PFI BY THE NUMBERS

- 650 employees
- 6 Production plants
- Non production sites
 - Innovation & Technology Center- Eagan, MN
 - HQ - Inver Grove Heights, MN



DOMESTIC PROTEIN FACILITIES

Hutchinson, KS

- Texturized soy proteins & analogs
- Over 240 different products
- Non-GMO capability
- Natural color capability

South Sioux City, NE

- Isolated Soy Proteins
- All products are Non-GMO
- SQF level 3 Certified
- Non-GMO Project Verified and CertID certified



NON-GMO PROJECT VERIFIED

The screenshot shows the Living non-GMO website. At the top, there's a navigation bar with the Living non-GMO logo (a butterfly) and the text "A LIFESTYLE SITE CREATED BY THE NON-GMO PROJECT". To the right, it says "HELP DRIVE PUBLIC AWARENESS" and "DONATE NOW" with a search bar. Below this is a row of buttons: LEARN, FIND, RECIPES, CONNECT, and SHOP. Under the FIND button, there are two tabs: PRODUCTS (selected) and RETAILERS. Below the tabs, it says "Search for a Non-GMO Project Verified Product by:". There are three input fields: "Product Category", "Product Name or Keyword", and "Product Brands", separated by "OR". Below these is a dropdown menu for "Find brands starting with:" with "Any Letter" selected. The results section shows the CHS logo and "CHS Oilseed Processing (14 products displayed)". Below this is a grid of 12 products:

Isolated Soy Protein Q814	Soy Protein Isolate Q 736	Soy Protein Isolate Q 758	Soy Protein Isolate Q 950
Non GMO Soybean Meal	Soy Protein Isolate Q 741 IP	Soy Protein Isolate Q 842	Soy Protein Isolate Q910
Defatted 20-80 Soy Grits	Non-GMO Soy Flakes	Non-GMO Soy Flour	



- **Two facilities committed to Non-GMO production**
 - South Sioux City, NE – Soy Protein Isolate
 - Creston, IA – Soybean Meal, White Flake, Crude Oil

CLEAN LABEL IS ON TREND

Clean, Clear Labeling is a global phenomenon:

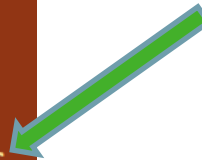
- non-GMO claims are up 4% (3.3% of global product launches claim non-GMO)
- Animal Friendly claims are up 111%
- Human Friendly (i.e. Fair Trade) up 89%
- Consumers are willing to pay up to 75% more for ingredients they know/understand and trust. Natural colors & flavors make sense.

Important in US also: 29% of US Consumers indicate cleaner labels influence purchase decisions

Consumers redefine quality:

Today's Meaning

- Chef as arbiter of taste
- Open production
- Imperfectly perfect
- Pride in craftsmanship
- Reconnecting with food and its origins
- Demand for transparency in production



NATURAL COLORS & FLAVORS



NESTLÉ BANANA FLAVORED YOGURT WITH CHOCOLATE PIECES
"No preservatives, colorings or artificial flavors"

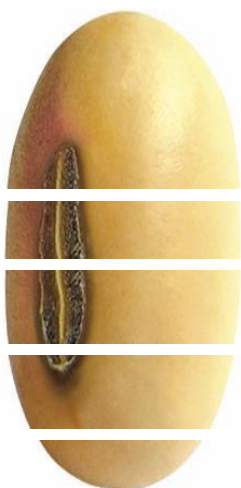
KRAFT SHARP CHEDDAR SINGLES
"No artificial flavors"

CAMPBELL'S SIMPLY SOUP BUTTERNUT PUMPKIN SOUP
"No artificial colors or flavors"

One of the most tracked clean label claims among product introductions is **"free from artificial colorings/flavorings."**

SOY IS A NATURAL PROTEIN AND PAIRS WELL WITH OTHER NATURAL INGREDIENTS

COMPOSITION



40% Protein

20% Soluble Carbohydrates

20% Insoluble Carbohydrates

18% Oil

5% Moisture/Ash/Other

Textured Soy Protein Ingredient Statement Examples

Textured Soy Flour
Textured Vegetable Protein (Soy Flour +)
Natural Colors
Natural Flavors
Soybean Oil
Salt
Yeast Extract
Dextrose

ULTRA-SOY® TSP™ - TEXTURED SOY PROTEIN



FUNCTION

- Textured Soy Flour in neutral or with color (TSP™)
- Increases fat and water holding capacity
- Increases product yields
- Lowers production costs
- Meets protein requirements
- Non-GMO capability
- Natural Color Capability

Ingredients

INGREDIENTS: FILLING: CABBAGE, GROUND PORK (NOT MORE THAN 20% FAT), CARROTS, TEXTURED SOY PROTEIN (TEXTURED SOY FLOUR), ONION, CELERY, WHEY PROTEIN CONCENTRATE, CONTAINS 2% OR LESS OF: DRIED WHOLE EGG, SUGAR, SALT, FOOD STARCH, BLEACHED WHEAT FLOUR, FISH SAUCE (ANCHOVY FISH EXTRACT, SALT, SUGAR), DRIED GARLIC, SPICE, SODIUM ALGinate; WRAPPER: WHITE WHOLE WHEAT FLOUR, WATER, ENRICHED FLOUR (WHEAT FLOUR, MALTED BARLEY FLOUR, NIACIN, REDUCED IRON, THIAMINE MONONITRATE, RIBOFLAVIN, FOLIC ACID), ENRICHED DURUM FLOUR (WHEAT FLOUR, NIACIN, FERROUS SULFATE, THIAMINE MONONITRATE, RIBOFLAVIN, FOLIC ACID), CONTAINS 2% OR LESS OF: WHEAT GLUTEN, VEGETABLE OIL (COTTONSEED AND/OR CANOLA OIL), FLAVOR (SALT, YEAST EXTRACT, DEXTROSE, NATURAL FLAVOR), DRIED WHOLE EGG, SALT, RICE EXTRACT, ASCORBIC ACID, CORNSTARCH; SEALER: WATER. FRIED IN VEGETABLE OIL (COTTONSEED AND/OR CANOLA OIL).

Protein: 9 grams per piece

ULTRA-SOY® & IMAGIC® TEXTURED SOY ANALOGS



FUNCTION

- Enhance foods and improve nutritional profile while reducing costs
- Increases fat and water holding capacity
- Increases product yields
- Lowers production costs
- Wide variety of flavor profiles
- Natural Color capability
- Natural Flavor capability
- Non-GMO capability



Example:

Asian Chicken Salad with Soy Ginger Dressing

Asian Chicken Salad with Soy Ginger Dressing	
Nutritional Content	
	per 100 g
Calories	70
Protein (g)	4
Fiber (g)	2.65
Fat (g)	5
Cholesterol (mg)	0

SOUTH SIOUX CITY, NEBRASKA

- Fully integrated. Have soybean crushing plant and make own white flakes
- Controlled high PDI – highest quality soy protein
- Modern soy protein isolate plant
- Designed for beverage/nutrition bar products
- Clean flavor using water washed process
- IP program – non-GMO Project Verified



SOY PROTEIN ISOLATE (Q)



Nutrition Facts	
Serving Size 3 Pieces (45g)	
Servings Per Container about 5	
Amount Per Serving	
Calories 180	Calories from Fat 60
% Daily Value*	
Total Fat 6g	10%
Saturated Fat 0.5g	3%
Trans Fat 0g	
Polyunsaturated Fat 1.5g	
Monounsaturated Fat 4g	
Cholesterol 0mg	0%
Sodium 180mg	7%
Total Carbohydrate 24g	8%
Dietary Fiber 1g	6%
Sugars 11g	
Protein 7g	12%
Calcium 4%	Iron 8%

Ingredients: Whole Grain Oats, Soy Protein Isolate, Sugar, Wheat Flour, Canola Oil, Refiner's Syrup, Water, Almond Pieces, Glycerin, Honey, Dried Blueberries, Egg White, Rice Starch, Molasses, Salt, Soy Lecithin, Cinnamon, Baking Soda, Calcium Carbonate, Natural Flavor, Palm Oil, Blueberry Juice Concentrate. Mixed Tocopherols Added to Preserve Freshness.

CONTAINS SOY, WHEAT, ALMOND, EGG; MAY CONTAIN MILK AND PECAN INGREDIENTS.

NET BY GENERAL MILLS SALES, INC., MINNEAPOLIS, MN 55418 USA
45 General Mills 3414370101

This package is sold by weight, not by volume. You can be disappointed in product, ingredients, or weight accuracy as contents normally occurs during shipment and handling.



FUNCTION

- Neutral Color
- Clean Flavor Profile
- Aids in protein claim creations
- Drives increased satiety
- Broad Portfolio:
 - **Highly dispersible** isolated soy proteins – for ready-to-drink and dry blended beverages
 - **Low viscosity** isolated soy proteins – for ready-to-drink beverages, nutritional bars, and extruded nuggets and crisps
 - **High viscosity, high gelling, good emulsifier** for emulsified meats

Soy Protein Isolate (Q)

Q 735

Is a medium viscosity soy protein isolate that contains 3% calcium and demonstrates good suspension

Q 741

Is a medium viscosity soy isolate that demonstrates an excellent flavor profile

Q 742

Is a low viscosity soy isolate that exhibits a clean mouthfeel

Q 758

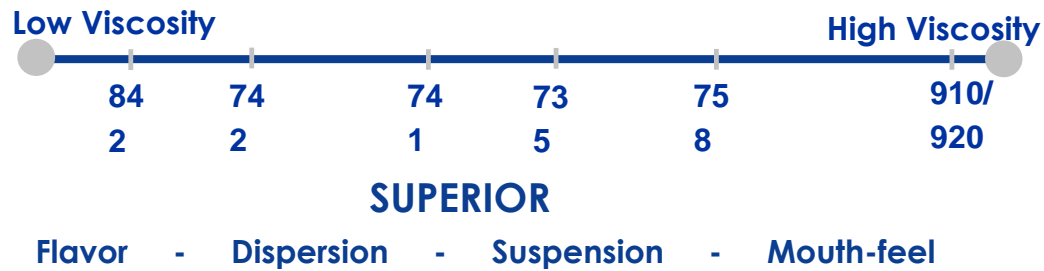
Is a medium viscosity soy isolate with rapid dispersion properties as well as a bland flavor profile

Q 842

Provides the lowest viscosity with a clean mouthfeel coupled with good suspension, suitable for both pH neutral and acidic beverages

Q 910

Provides the highest viscosity and is suitable for shakes and smoothies



TECHNICAL INGREDIENT CENTER EAGAN, MN



SUSTAINABILITY AND USA SOYBEANS AND PFI

Sustainability Seal on PFI Packaging:



- This program is verification that the soy products we sell are produced in the United States in a sustainable manner.
- This certification is verified by the U.S. Soybean Sustainability Assurance Protocol (SSAP), developed by USSEC, the United Soybean Board (USB), and the American Soybean Association (ASA) through a multi-stakeholder process to ensure the methodologies for measuring sustainable performance are thorough, transparent and credible.
- **SSAP** provides assurance of beans were grown as part of a program that monitors carbon emissions, energy use, greenhouse gas (GHG) emissions and soil erosion per acre of soybeans grown and per bushel of soybeans produced in the United States.

Source: www.ussec2016.wpengine.com/ssap

**Contact your sales manager for further
information and follow-up**



PFI – U.S. LOCATIONS

Production Facilities	Year Acquired
• Mankato, MN	1962
• Fairmont, MN	2003
• Hutchinson, KS	2008
• Creston, IA	2011
• South Sioux City, NE	2012
• Hallock, MN	2015

