Soy Protein Concentrates

These concentrates are prepared from dehulled and defatted soybeans by removing water-soluble, non-protein constituents. They contain at least 65% protein (N x 6.25) on a moisture-free basis.

Neutralized concentrates prepared by acid leaching have a higher water-soluble protein content than those prepared by either alcohol leaching or heat denaturation techniques.

A more recently developed process uses a low water-soluble protein concentrate (aqueous alcohol extraction) that is heat treated, by steam injection or jet cooking, to increase its solubility and functionality. Functionality may be improved further by homogenization. These concentrates function as emulsifiers and emulsion stabilizers, they bind fat and water, and they offer special adhesive properties similar to those of isolates.

These protein concentrates may be produced by three basic processes: acid leaching (~ 4.5 pH), extraction with aqueous alcohol (70% - 90%), and denaturing the protein with moist heat prior to extraction with water.

**Uses:** Various applications requiring a low-flavor profile, water- and fat-absorption, emulsification, and nutritional uses.

**Denatured-water-leached soy concentrate is no longer manufactured.**


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### Diagram:

![Diagram of soy protein concentrate production process](attachment:image_url)
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