

(i) Food starch may be modified by treatment with the following enzymes:

Enzyme	Limitations
Alpha-amylase (E.C. 3.2.1.1) .....	The enzyme must be generally recognized as safe or approved as a food additive for this purpose. The resulting nonsweet nutritive saccharide polymer has a dextrose equivalent of less than 20.
Beta-amylase (E.C. 3.2.1.2).	
Glucoamylase (E.C. 3.2.1.3).	
Isoamylase (E.C. 3.2.1.68). Pullulanase (E.C. 3.2.1.41).	

[42 FR 14491, Mar. 15, 1977, as amended at 43 FR 11697, Mar. 21, 1978; 46 FR 32015, June 19, 1981; 57 FR 54700, Nov. 20, 1992; 58 FR 21100, Apr. 19, 1993; 66 FR 17509, Apr. 2, 2001]

**§ 172.894 Modified cottonseed products intended for human consumption.**

The food additive modified cottonseed products may be used for human consumption in accordance with the following prescribed conditions:

- (a) The additive is derived from:
  - (1) Decorticated, partially defatted, cooked, ground cottonseed kernels; or
  - (2) Decorticated, ground cottonseed kernels, in a process that utilizes *n*-hexane as an extracting solvent in such a way that no more than 60 parts per million of *n*-hexane residues and less than 1 percent fat by weight remain in the finished product; or
  - (3) Glandless cottonseed kernels roasted to attain a temperature of not less than 250 °F in the kernel for not less than 5 minutes for use as a snack food, or in baked goods, or in soft candy; or
  - (4) Raw glandless cottonseed kernels may be used in hard candy where the kernel temperature during cooking will exceed 250 °F for not less than 5 minutes.
- (b) The additive is prepared to meet the following specifications:
  - (1) Free gossypol content not to exceed 450 parts per million.
  - (2) It contains no added arsenic compound and therefore may not exceed a maximum natural background level of 0.2 part per million total arsenic, calculated as As.
  - (c) To assure safe use of the additive, the label of the food additive container shall bear, in addition to other infor-

mation required by the act, the name of the additive as follows:

- (1) The additive identified in paragraph (a)(1) of this section as “partially defatted, cooked cottonseed flour”.
- (2) The additive identified in paragraph (a)(2) of this section as “defatted cottonseed flour”.
- (3) The additive identified in paragraph (a)(3) of this section as “roasted glandless cottonseed kernels”.
- (4) The additive identified in paragraph (a)(4) of this section as “raw glandless cottonseed kernels for use in cooked hard candy”.
- (d) The Food and Drug Administration and the Environmental Protection Agency have determined that glandless cottonseed kernels permitted for use by this section are a distinct commodity from glanded cottonseed.

**§ 172.896 Dried yeasts.**

Dried yeast (*Saccharomyces cerevisiae* and *Saccharomyces fragilis*) and dried torula yeast (*Candida utilis*) may be safely used in food provided the total folic acid content of the yeast does not exceed 0.04 milligram per gram of yeast (approximately 0.008 milligram of pteroylglutamic acid per gram of yeast).

**§ 172.898 Bakers yeast glycan.**

Bakers yeast glycan may be safely used in food in accordance with the following conditions:

- (a) Bakers yeast glycan is the comminuted, washed, pasteurized, and dried cell walls of the yeast, *Saccharomyces cerevisiae*. It is composed principally of long chain carbohydrates, not less than 85 percent on a dry solids basis. The carbohydrate is composed of glycan and mannan units in approximately a 2:1 ratio.
- (b) The additive meets the following specifications on a dry weight basis: Less than 0.4 part per million (ppm) arsenic, 0.13 ppm cadmium, 0.2 ppm lead, 0.05 ppm mercury, 0.09 ppm selenium, and 10 ppm zinc.
- (c) The viable microbial content of the finished ingredient is:
  - (1) Less than 10,000 organisms/gram by aerobic plate count.
  - (2) Less than 10 yeasts and molds/gram.