

§ 590.570 Pasteurization of liquid eggs.

(a) Pasteurization facilities: The facilities for pasteurization of egg products shall be adequate and of approved construction so that all products will be processed as provided for in this section. Pasteurization equipment for liquid egg product shall include a holding tube, an automatic flow diversion valve, thermal controls, and recording devices to determine compliance for pasteurization as set forth in paragraph (b) of this section. The temperature of the heated liquid egg product shall be continuously and automatically recorded during the process.

(b) Pasteurizing operations: Every particle of all products must be rapidly heated to the required temperature and held at that temperature for the required minimum holding time as set forth in this section. The temperatures and holding times listed in Table I of this section are minimum. The product may be heated to higher temperatures and held for longer periods of time. Pasteurization procedures shall assure complete pasteurization, and holding, packaging, facilities and operations shall be such as to prevent contamination of the product.

TABLE I—PASTEURIZATION REQUIREMENTS¹

Liquid egg product	Minimum temperature requirements (°F.)	Minimum holding time requirements (Minutes)
Albumen (without use of chemicals)	134	3.5
	132	6.2
Whole egg	140	3.5
Whole egg blends (less than 2 percent added nonegg ingredients)	142	3.5
	140	6.2
Fortified whole egg and blends (24–38 percent egg solids, 2–12 percent added nonegg ingredients)	144	3.5
	142	6.2
Salt whole egg (with 2 percent or more salt added)	146	3.5
	144	6.2
Sugar whole egg (2–12 percent sugar added)	142	3.5
	140	6.2
Plain yolk	142	3.5
	140	6.2
Sugar yolk (2 percent or more sugar added)	146	3.5
	144	6.2
Salt yolk (2–12 percent salt added) ..	146	3.5
	144	6.2

¹ Pasteurization of egg products not listed in this table shall be in accordance with paragraph (c) of this section.

[36 FR 9814, May 28, 1971, as amended at 85 FR 81341, Dec. 16, 2020]

EFFECTIVE DATE NOTE: At 85 FR 68680, Oct. 29, 2020, § 590.570 was revised, effective Oct. 29, 2021 and Oct. 31, 2022. At 85 FR 81341, Dec. 16, 2020, § 590.570 was correctly amended by removing and reserving paragraph (a), effective Oct. 29, 2021, and revising § 590.570, effective Oct. 31, 2022. For the convenience of the user, the revised text is set forth as follows:

§ 590.570 Control of pathogens in pasteurized egg products.

Pasteurized egg products must be produced to be edible without additional preparation to achieve food safety and may receive additional preparation for palatability or aesthetic, epicurean, gastronomic, or culinary purposes. Pasteurized egg products are not required to bear a safe-handling instruction or other labeling that directs that the product must be cooked or otherwise treated for safety.

§ 590.575 Heat treatment of dried whites.

Heat treatment of dried whites is an approved method for pasteurization and the product shall be heated throughout for such times and at such temperatures as will result in salmonella negative product.

(a) The product to be heat treated shall be held in the heat treatment room in closed containers and shall be spaced to assure adequate heat penetration and air circulation. Each container shall be identified as to type of product (spray or pan dried) and with the lot number or production code number.

(b) The minimum requirements for heat treatment of spray or pan dried albumen shall be as follows:

(1) Spray dried albumen shall be heated throughout to a temperature not less than 130 °F and held continuously at such temperature not less than 7 days and until it is salmonella negative.

(2) Pan dried albumen shall be heated throughout to a temperature of not less than 125 °F and held continuously at such temperature not less than 5 days and until it is salmonella negative.

(3) Methods of heat treatment of spray dried or pan dried albumen, other than listed in paragraphs (b) (1) and (2) of this section, may be approved by the

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Administrator upon receipt of satisfactory evidence that such methods will result in salmonella negative products.

(c) Dried whites which have been heat treated in the dried form shall be sampled and analyzed for the presence of *Salmonellae* as required in § 590.580.

(d) Records shall be maintained for 1 year of the following:

- (1) Types of product;
- (2) Lot number;
- (3) Heat treatment room temperatures;
- (4) Product temperatures;
- (5) Length of time product is held in heat treatment room;
- (6) Results of all laboratory analyses made for the presence of *Salmonellae*.

(e) Dried whites processed and tested in accordance with all of the applicable requirements specified in this section may be labeled "Pasteurized."

[36 FR 9814, May 28, 1971. Redesignated at 42 FR 32514, June 27, 1977, and further redesignated at 46 FR 63203, Dec. 31, 1981, as amended at 47 FR 745, Jan. 7, 1982; 60 FR 49169, Sept. 21, 1995; 60 FR 58199, Nov. 27, 1995]

EFFECTIVE DATE NOTE: At 85 FR 68680, Oct. 29, 2020, § 590.575 was removed, effective Oct. 31, 2022.

LABORATORY

§ 590.580 Pathogen reduction standards testing.

(a) Official plants must test to determine that the production of egg products is in compliance with the Act and the egg products inspection regulations.

(b) To ensure adequate pasteurization:

(1) Pasteurized liquid, frozen, and dried egg products, and heat treated dried egg whites must be sampled and analyzed for the presence of *Salmonella* spp. Such testing by the official plant must be performed in a manner sufficient such that it is possible for the official plant to verify that the system is capable of eliminating *Salmonella* spp. at the time that the annual reassessment occurs, and as regularly as necessary between annual reassessments, to show that the system, when tested, is working.

(2) Samples must be analyzed for the presence of *Salmonella* spp. with such frequency and using such laboratory

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methods as is sufficient to ensure that product is not adulterated. For each category of product, sampling should be conducted on a rotating basis.

(3) Samples must be drawn from the final packaged form.

(c) Results of all partial and completed analyses performed under paragraph (b) of this section must be provided to inspection program personnel promptly upon receipt by the official plant. Positive test results must be provided to inspection program personnel immediately upon receipt by the official plant.

[85 FR 68680, Oct. 29, 2020]

EFFECTIVE DATE NOTE: At 85 FR 81340, Dec. 16, 2020, § 590.580(b)(1) was stayed through Oct. 31, 2022.

§ 590.590 Use of irradiated shell eggs to produce egg products.

Irradiated shell eggs used to produce pasteurized egg products must be used in conjunction with heat or another lethality treatment sufficient to produce egg products that are edible without additional preparation to achieve food safety. Unless otherwise approved by FDA, the irradiation treatment of the shell eggs must precede the heat or other lethality treatment applied to the egg products.

INSPECTION AND DISPOSITION OF RESTRICTED EGGS

§ 590.700 Prohibition on disposition of restricted eggs.

(a) No person may buy, sell, or transport, or offer to buy or sell, or offer or receive for transportation in any business in commerce any restricted eggs capable of use as human food, except as authorized in §§ 590.100 or 590.720.

(b) No egg handler may possess with the intent to use, or use, any restricted eggs in the preparation of human food, except as provided in §§ 590.100 or 590.720.

[85 FR 68680, Oct. 29, 2020]

§ 590.720 Disposition of restricted eggs.

(a) Except as exempted in § 590.100, eggs classified as checks, dirts, incubator rejects, inedibles, leakers, or loss