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[Page 441-669]

TITLE 9--ANIMALS AND ANIMAL PRODUCTS

CHAPTER III--FOOD SAFETY AND INSPECTION SERVICE, MEAT AND POULTRY INSPECTION, DEPARTMENT OF AGRICULTURE

PART 381--POULTRY PRODUCTS INSPECTION REGULATIONS

Subpart O--Entry of Articles Into Official Establishments; Processing Inspection and Other Reinspections; Processing Requirements

381.145 Poultry products and other articles entering or at official establishments; examination and other requirements.
381.146 Sampling at official establishments.
381.147 Restrictions on the use of substances in poultry products.
381.148 Processing and handling requirements for frozen poultry products.
381.149 Irradiation of poultry product to control foodborne pathogens.
381.150 Requirements for the production of poultry breakfast strips, poultry rolls, and certain other poultry products.
381.151 Adulteration of product by polluted water; procedure for handling.
381.152 Preparation in an official establishment of articles not for human food.
381.153 Accreditation of chemistry laboratories.

Sec. 381.147 Restrictions on the use of substances in poultry products.

(a) All ingredients and other substances used in the processing or handling of poultry products at official establishments shall be such as will not result in adulteration or misbranding of the poultry products.

(b) Poultry products and poultry broth used in the processing of poultry products shall have been processed in the United States only in an official establishment, or imported from a foreign country listed in Sec. 381.196(b), and inspected and passed, in accordance with the regulations. Detached ova and offal shall not be used in the processing of any poultry products, except that poultry feet may be processed for use as human food when handled in a manner approved by the Administrator in specific cases, and detached ova may be used in the processing of poultry products if the processor demonstrates that such ova comply with the requirements under the Federal Food, Drug, and Cosmetic Act.

(c) Liquid, frozen, and dried egg products used in the processing of any poultry product shall have been prepared under inspection and be so marked in accordance with the Egg Products Inspection Act.

(d)(1) Carcasses, parts thereof, meat and meat food products of cattle, sheep, swine, goats, or equines may be used in the processing of poultry products only if they were prepared in the United States only in an official meat packing establishment, or imported, and were inspected and passed, in accordance with the Federal Meat Inspection Act, and the regulations under such Act (subchapter A of this chapter) and are so marked.

(2) Pork from carcasses or carcass parts, used as an ingredient in poultry products, that has been found free of trichinae, as described under Sec. 318.10 (a)(2), (e) and (f) of the Federal meat inspection regulations (9 CFR 318.10 (a)(2), (e) and (f)), is not required to be treated for the destruction of trichinae.

(3) Poultry products containing pork muscle tissue which the Administrator determines at the time the labeling for the product is submitted for approval in accordance with part 381 of the regulations in subchapter C, or upon subsequent reevaluation of the product, would be prepared in such a manner that the product might be eaten rare or without thorough cooking because of the appearance of the finished product or otherwise, shall be effectively heated, refrigerated, or cured to destroy any possible live trichinae, as prescribed in Sec. 318.10(c) of the Federal meat inspection regulations (9 CFR 318.10(c)), at the official establishment where such products are prepared. In lieu of such treatment of poultry products containing pork, the pork ingredient may be so treated.

(e) [Reserved]

(f)(1) No substance may be used as an ingredient or otherwise in the processing of any raw or cooked poultry product unless its use is approved as shown in Table 1 of paragraph (f)(4) of this section, or elsewhere in this part, or by the Administrator in specific cases.

(2) Approval of new substances or new uses or new levels of use of approved substances may be granted if:

(i) The substance has been previously approved by the Food and Drug Administration (FDA) for use in poultry or poultry products as a food additive, color additive or as a substance generally recognized as safe and is listed in title 21 of the Code of Federal Regulations, parts 73, 74, 81, 172, 173, 182, or 184.

(ii) Its use is in compliance with applicable FDA requirements; and

(iii) The Administrator has determined that:

(A) The use of the substance will not render the product in which it is used adulterated or misbranded or otherwise not in compliance with the Act; and

(B) Its use is functional and suitable for the product and it is permitted for use at the lowest level necessary to accomplish the desired technical effect as determined in specific cases.

(3) Whenever the Administrator determines that approval of a new substance or a new use or new level of use of an approved substance should be granted in accordance with pararaph (f)(1) of this section, the Administrator shall issue a final rule amending Table 1 of paragraph (f)(4) of this section to include the additional substance or new use of the substance, and any technical effect or change in the level of use of the substance.

(4) No poultry product shall bear or contain any substance which

would render it adulterated or misbranded, or which is not approved in Part 381 or by the Administrator in specific cases.

Table I

[See footnotes at end of this table]

Class of substance	Substance	Purpose	Products	Amount
Acidifiers.....	Acetic acid.....	To adjust acidity.....	Various\3\.....	Sufficient for purpose.\4\
	Citric acid.....	.....do.....	.....do.....	Do.
	Glucono delta-lactone..	.....do.....	.....do.....	Do.
	Lactic acid.....	.....do.....	.....do.....	Do.
	Phosphoric acid.....	.....do.....	.....do.....	Do.

[[Page 537]]

	Tartaric acid.....	.....do.....	.....do.....	Do.
Antifoaming agent.	Methyl polysilicone....	To retard foaming.....	Soups.....	10 ppm.
			Rendered fats.....	10 ppm.
			Curing pickle.....	50 ppm.
Antimicrobial agents.	Trisodium phosphate....	To reduce microbial levels.	Raw, chilled poultry carcasses.	8 to 12 percent; solution to be maintained at 45 deg.F. to 55 deg.F. and applied by spraying or dipping carcasses for up to 15 seconds in accordance with 21 CFR 182.1778.
Antioxidants and oxygen interceptors.	BHA (butylated hydroxyanisole).	To retard rancidity....	Various.....	0.01 percent based on fat content. (0.02 percent in combination with any other antioxidant listed in this table based on fat content.)
	BHT (butylated hydroxytoluene).	.....do.....	.....do.....	Do.
	Propyl gallate.....	.....do.....	.....do.....	0.01 percent based on fat content. (0.02 percent in combination with any other antioxidant listed in this table, except

				TBHQ, based on fat content.)
	TBHQ (tertiary butylhydroquinone).	.....do.....	.....do.....	0.01 percent based on fat content. (0.02 percent in combination only with BHA and/or BHT based on fat content.)
	Tocopherols.....	.....do.....	.....do.....	0.03 percent based on fat content. (0.02 percent in combination with any other antioxidant listed in this table, except TBHQ, based on fat content.)
Binders and extenders.	A mixture of sodium alginate, calcium carbonate, lactic acid, and calcium lactate.	To bind poultry pieces.	Ground and formed raw or cooked poultry pieces.	Sodium alginate not more than 0.8%, calcium carbonate not more than 0.15%, lactic acid and calcium lactate, in combination, not more than 0.6% of product formulation. Added mixture may not exceed 1.55% of product at formulation. The mixture must be added in dry form.
	Algin.....	To extend and stabilize product.	Various.....	Sufficient for purpose.
	Carrageenan.....	.....do.....	.....do.....	Do.
	Carboxymethyl cellulose (cellulose gum).	.....do.....	.....do.....	Do.
	Enzyme (rennet) treated calcium reduced dried skim milk and calcium lactate.	To bind and extend product.	Various.....	Sufficient for purpose. (Calcium lactate required at rate of 10 percent of binder.)
	Enzyme (rennet) treated sodium caseinate and calcium lactate.	.....do.....	.....do.....	Sufficient for purpose. (calcium lactate required at rate

				of 25 percent of binder.)
	Gelatin.....	.....do.....	.....do.....	Sufficient for purpose in accordance with 21 CFR 172.5.
	Gums, vegetable.....	.....do.....	.....do.....	Do.
	Methyl cellulose.....	To extend and to stabilize product (also carrier).	.....do.....	0.15 percent.
	Isolated soy protein...	To bind and extend product.	.....do.....	Sufficient for purpose.
	Sodium caseinate.....	.....do.....	.....do.....	3 percent in cooked product, 2 percent in raw product; in accordance with 21 CFR 172.5 and 182.1748.
	Tapioca dextrin.....	.....do.....	.....do.....	Sufficient for purpose in accordance with 21 CFR 184.1277.

[[Page 538]]

	Wheat gluten.....	.....do.....	.....do.....	Sufficient for purpose in accordance with 21 CFR 184.1322.
	Whey (dried).....	.....do.....	.....do.....	Do.
	Xanthan gum.....	To maintain: Uniform viscosity; suspension of particulate matter; emulsion stability; freeze-thaw stability.	Various, except uncooked products or sausages or other products with a moisture limitation established by Subpart P of this Part.	Do.
Chilling media....	Salt (NaCl).....	To aid in chilling.....	Raw poultry products...	700 lbs. to 10,000 gals. of water.\1\
Coloring agents (natural).	Annatto, Carotene.....	To color products.....	Various.....	Sufficient for purpose.
Coloring agents (artificial).	Coal tar dyes (FD&C certified), Titanium dioxide.	To color products; to whiten products.	.....do..... Salads and spreads.....	Do. 0.05 percent.
Curing accelerators; must be used only in combination with curing agents.	Ascorbic acid.....	To accelerate color fixing.	Cured poultry; cured, comminuted poultry products.	75 oz to 100 gal pickle at 10 percent pump level; \3/4\ oz to 100 lb of poultry product; 10 percent solution to surfaces of the

				product prior to packaging. (The use of such solution shall not result in the addition of a significant amount of moisture to the product.)
	Erythorbic acid.....	.....do.....	.....do.....	Do.
	Fumaric acid.....	.....do.....	Cured, comminuted poultry or poultry products.	0.065 percent (or 1 oz to 100 lb) of the weight of the poultry or poultry byproducts, before processing.
	Sodium ascorbate.....	.....do.....	.....do.....	87.5 oz to 100 gal pickle at 10 percent pump level; \7/8\ oz to 100 lb of poultry product; 10 percent solution to surfaces of product prior to packaging. (The use of such solution shall not result in the addition of a significant amount of moisture to the product.)
	Sodium erythorbate.....	.....do.....	.....do.....	Do.
	Citric acid or sodium citrate.	.....do.....	.....do.....	May be used in cured products to replace up to 50 percent of the ascorbic acid or sodium ascorbate that is used.
Curing agents.....	Sodium or potassium nitrate.	Source of nitrite.....	.....do.....	7 lb to 100 gal pickle; 3\1/2\ oz. to 100 lb or poultry product (dry cure); 2\3/4\ oz to 100 lb of chopped poultry meat.
	Sodium or potassium	To fix color.....	Cured products.....	2 lb to 100 gal

		nitrite. (Supplies of sodium nitrite and potassium nitrite and mixtures containing them must be kept securely under the care of a responsible employee of the establishment. The specific nitrite content of such supplies must be known and clearly marked accordingly.).		pickle at 10 percent pump level; 1 oz to 100 lb of poultry product (dry cure); \1/ 4\ oz to 100 lb chopped poultry meat. The use of nitrites, nitrates, or combination shall not result in more than 200 ppm of nitrite, calculated as sodium nitrite, in finished product.
Emulsifying agents	Acetylated monoglycerides.	To emulsify product....	Various.....	Sufficient for purpose.
	Diacetyl tartaric acid esters of mono- and diglycerides.	.....do.....	Rendered poultry fat or a combination of such fat with vegetable fat.	Do.

[[Page 539]]

	Glycerol-lacto stearate, oleate or palmitate.	.....do.....	.....do.....	Do.
	Lecithin.....	To emulsify product (also as antioxidant).	Various.....	Do.
	Mono- and diglycerides (glycerol palmitate, etc.).	To emulsify product....	.....do.....	Do.
	Polysorbate 80 (polyoxyethylene (20) sorbitan monooleate).	To emulsify product....	Various.....	1 percent when used alone. If used with polysorbate 60, the combined total shall not exceed 1 percent.
	Propylene glycol mono- and diesters of fats and fatty acids.	.....do.....	Rendered poultry fat or a combination of such fat with vegetable fat.	Sufficient for purpose.
	Polysorbate 60 (polyoxyethylene (20) sorbitan monostearate).	.....do.....	.....do.....	1 percent when used alone. If used with polysorbate 80, the combined total shall not exceed 1 percent.
Flavoring agents;	Artificial smoke	To flavor product.....	Various.....	Sufficient for

protectors and developers.	flavoring..			purpose.
	Smoke flavoring.....	.....do.....	.....do.....	Do.
	Autolyzed yeast extract	.....do.....	.....do.....	Do.
	Citric acid.....	To protect flavor.....	.....do.....	Do.
	Corn syrup solids; corn syrup; glucose syrup.	To flavor product.....	.....do.....	Do.
	Disodium inosinate.....	.....do.....	.....do.....	Do.
	Disodium guanylate.....	.....do.....	.....do.....	Do.
	Hydrolyzed plant protein.	.....do.....	.....do.....	Do.
	Malt syrup.....	.....do.....	.....do.....	Do.
	Milk protein hydrolysate.	.....do.....	.....do.....	Do.
	Monosodium glutamate...	.....do.....	.....do.....	Do.
	Monoammonium glutamate.	.....do.....	.....do.....	Do.
	Sodium sulfoacetate derivative of mono and diglycerides.	.....do.....	.....do.....	0.5 percent.
	Sugars approved (surcose and dextrose).	.....do.....	.....do.....	Sufficient for purpose.
	Potassium lactate.....	To flavor product.....	Various poultry and poultry food products, except infant formula and infant food. \3\	Not to exceed 2 percent of formulation; in accordance with 21 CFR 184.1639.
	Sodium lactate.....	.....do.....	.....do.....	Not to exceed 2 percent of formulation; in accordance with 21 CFR 184.1768.
Gases.....	Carbon dioxide solid (dry ice).	To cool product or facilitate chopping or packaging.	Various.....	Do.
	Carbon dioxide liquid..	Contact freezing.....	.....do.....	Do.
	Nitrogen.....	To exclude oxygen from sealed containers.	.....do.....	Do.
	Nitrogen liquid.....	Contact freezing.....	.....do.....	Do.
Miscellaneous.....	Sodium bicarbonate.....	To neutralize excess acidity; cleaning vegetables.	Rendered fat, soups, curing pickle.	Do.

[[Page 540]]

	Calcium propionate.....	To retard mold growth..	Fresh pie dough.....	0.3 percent of calcium propionate or sodium propionate alone, or in combination, based on weight of the flour used.
	Sodium hydroxide.....	To decrease the amount	Poultry food products	May be used only

		of cooked out juices.	containing phosphates.	in combination with phosphate in a ratio not to exceed one part sodium hydroxide to four parts phosphate.
Sodium propionate.....	To retard mold growth..		Fresh pie dough.....	0.3 percent of calcium propionate or sodium propionate alone, or in combination, based on weight of the flour used.
Disodium phosphate.....	To decrease the amount of cooked out juices.		Poultry food products except where otherwise prohibited by the poultry products inspection regulations.	0.5 percent of total product.
Monosodium phosphate...	.....do.....		.....do.....	Do.
Sodium metaphosphate, insoluble.	.....do.....		.....do.....	Do.
Sodium polyphosphate, glassy.	.....do.....		.....do.....	Do.
Sodium tripolyphosphate	.....do.....		.....do.....	Do.
Sodium pyrophosphate...	.....do.....		.....do.....	Do.
Sodium acid pyrophosphate.	.....do.....		.....do.....	Do.
Dipotassium phosphate..	.....do.....		.....do.....	Do.
Monopotassium phosphate	.....do.....		.....do.....	Do.
Potassium tripolyphosphate.	.....do.....		.....do.....	Do.
Potassium pyrophosphate	.....do.....		.....do.....	Do.
Tricalcium phosphate...	To preserve product color during dehydration process.		Mechanically deboned chicken to be dehydrated.	Not to exceed 2 percent of the weight of the mechanically deboned chicken prior to dehydration, in accordance with 21 CFR 182.1217.
Sodium citrate buffered with citric acid to a pH of 5.6.	To inhibit the growth of micro-organisms and retain product flavor during storage.		Cured and uncured, processed whole-muscle poultry food products, e.g., chicken breasts.	Not to exceed 1.3 percent of the formulation weight of the product in accordance with 21 CFR 184.1751.
Poultry scald	Alpha-hydro-omega-	To remove feathers.....	Poultry carcasses.....	Not to exceed

agents; must be removed by subsequent cleaning operations.	hydroxy-poly (oxyethylene) poly (oxypropylene) (minimum 15 moles) poly (oxyethylene) block copolymer (polyoxamer).			0.05% by weight in scald water.
	Dimethylpolysiloxane...	.....do.....	.....do.....	Sufficient for purpose.
	Dioctyl sodium sulfosuccinate.	.....do.....	.....do.....	Do.
	Dipotassium phosphate..	.....do.....	.....do.....	Do.
	Ethylenediamine-tetraacetic acid (sodium salts).	.....do.....	.....do.....	Do.
	Lime (calcium oxide, calcium hydroxide).	.....do.....	.....do.....	Do.

[[Page 541]]

	Polyoxyethylene (20) sorbitan monooleate.	.....do.....	.....do.....	Not to exceed 0.0175% in scald water.
	Potassium hydroxide....	.....do.....	.....do.....	Sufficient for purposes.
	Propylene glycol.....	.....do.....	.....do.....	Do.
	Sodium acid phosphate..	.....do.....	.....do.....	Do.
	Sodium bicarbonate.....	.....do.....	.....do.....	Do.
	Sodium carbonate.....	.....do.....	.....do.....	Do.
	Sodium dodecylbenzene-sulfonate.	.....do.....	.....do.....	Do.
	Sodium-2-ethylhexyl sulfate.	.....do.....	.....do.....	Do.
	Sodium hexametaphosphate.	.....do.....	.....do.....	Do.
	Sodium hydroxide.....	.....do.....	.....do.....	Do.
	Sodium lauryl sulfate..	.....do.....	.....do.....	Do.
	Sodium phosphate (mono-, di-, tribasic).	.....do.....	.....do.....	Do.
	Sodium pyrophosphate...	.....do.....	.....do.....	Do.
	Sodium sesquicarbonate.	.....do.....	.....do.....	Do.
	Sodium sulfate.....	.....do.....	.....do.....	Do.
	Sodium tripolyphosphate	.....do.....	.....do.....	Do.
	Tetrasodium pyrophosphate.	.....do.....	.....do.....	Do.
	Sodium tripolyphosphate	.....do.....	.....do.....	Do.
	Sodium pyrophosphate...	.....do.....	.....do.....	Do.
	Sodium acid pyrophosphate.	.....do.....	.....do.....	Do.
Proteolytic enzymes.	Aspergillus oryzae.....	To soften tissue.....	Raw poultry muscle tissue of hen, cock, mature turkey, mature duck, mature goose, and mature guinea.	Solutions consisting of water and approved proteolytic enzyme applied

				or injected into raw poultry tissue shall not result in a gain of more than 3 percent above the weight of the untreated product.
	Aspergillus flavus oryzze group.	.....do.....	.....do.....	Do.
	Bromelin.....	.....do.....	.....di.....	Do.
	Ficin.....	.....do.....	.....do.....	Do.
	Papain.....	.....do.....	.....do.....	Do.
Radiation Sources.	Ionizing radiation sources as approved in 21 CFR 179.26(a)	For control of food-borne pathogens	Fresh or frozen, uncooked, packaged poultry products that are: (1) Whole carcasses or disjointed portions of such carcasses that are ``ready-to-cook,'' which includes such poultry products as fresh or frozen, uncooked ground, hand-boned, and skinless poultry, (2) mechanically separated poultry--a finely comminuted ingredient produced by the mechanical deboning of poultry carcasses or parts of carcasses	Minimum absorbed dose of 1.5 kiloGray (150 kilorads) to a maximum absorbed dose of 3.0 kiloGray (300 kilorads).

[[Page 542]]

Synergists (used in combination with antioxidants).	Citric acid.....	To increase effectiveness of antioxidants.	Poultry fats.....	0.01 percent alone or in combination with antioxidants in poultry fats.
	Malic acid.....	.....do.....	.....do.....	Do.
	Monoisopropyl citrate..	.....do.....	.....do.....	0.01 percent poultry fats.
	Phosphoric acid.....	.....do.....	.....do.....	0.01 percent.
	Monoglyceride citrate..	.....do.....	.....do.....	0.02 percent.
Tenderizing agents	Aspergillus oryzae.....	To soften tissue.....	Raw poultry muscle tissue of hen, cock, mature turkey, mature duck, mature goose, and mature guinea.	Solutions consisting of water and approved proteolytic enzymes applied

			or injected into raw poultry tissue shall not result in a gain of more than 3 percent above the weight of the untreated product.
Aspergillus flavusoryzae group.	.....do.....	.....do.....	Do.
Bromelin.....	.....do.....	.....do.....	Do.
Ficin.....	.....do.....	.....do.....	Do.
Papain.....	.....do.....	.....do.....	Do.
Potassium chloride.....	.....do.....	.....do.....	Not more than 3 percent of a 2.0 molar solution.
Magnesium chloride.....	.....do.....	.....do.....	Not more than 3 percent of a 0.8 molar solution.
Calcium chloride.....	.....do.....	.....do.....	Not more than 3 percent of a 0.8 molar solution.
Potassium, magnesium or calcium chloride.	.....do.....	.....do.....	A solution of approved inorganic chlorides alone or in combination, applied or injected into raw poultry muscle tissue shall not result in a gain of more than 3 percent above the weight of the untreated product.

\1\Special labeling requirements are prescribed in Sec. 381.120 for raw poultry products chilled in a medium with more than 70 lbs. of salt to 10,000 gals. of water.

\2\ [Reserved]

\3\ Information as to the specific products for which use of this substance is approved may be obtained upon inquiry addressed to the Standards and Labeling Division, Meat and Poultry Inspection Technical Services, Food Safety and Inspection Service, U.S. Department of Agriculture, South Building, 14th Street and Independence Avenue SW., Washington, DC 20250.

\4\Provided, that its use is functional and suitable for the product and it is permitted for use at the lowest level necessary to accomplish the desired technical effect as determined in specific cases prior to label approval under Sec. 381.32.

[37 FR 9706, May 16, 1972]

Editorial Note: For Federal Register citations affecting Sec. 381.147, see the List of CFR Sections Affected in the Finding Aids section of this volume.