

Food for irradiation	Limitations	Use
Bagged complete diets, packaged feeds, feed ingredients, bulk feeds, animal treats and chews.	Absorbed dose: Not to exceed 50 kiloGrays. Feeds and feed ingredients treated by irradiation should be formulated to account for nutritional loss.	Microbial disinfection, control or elimination

(2) If an irradiated feed ingredient is less than 5 percent of the final product, the final product can be irradiated without being considered to be re-irradiated.

[51 FR 5993, Feb 19, 1986; 51 FR 8315, Mar. 11, 1986, as amended at 58 FR 18148, Apr. 8, 1993; 66 FR 18540, Apr. 10, 2001]

**§ 579.40 Ionizing radiation for the treatment of poultry feed and poultry feed ingredients.**

Ionizing radiation for the treatment of complete poultry diets and poultry feed ingredients may be safely used as follows:

(a) *Energy sources.* Ionizing radiation is limited to gamma rays from sealed units of cobalt-60.

(b) *Limitation.* The ionizing radiation is used for feed or feed ingredients that do not contain drugs.

(c) *Use.* Ionizing radiation is used as a single treatment for rendering complete poultry diets or poultry feed ingredients salmonella negative as follows:

(1) Minimum dose 2.0 kiloGrays (kGy) (0.2 megarad (Mrad)); maximum dose 25 kGy (2.5 megarads Mrad). The absorbed dose of irradiation is to be based on initial concentration of salmonella using the relationship that 1.0 kGy (0.1 Mrad) reduces salmonella concentration by one log cycle (one decimal reduction).

(2) Feeds treated by irradiation should be formulated to account for nutritional loss.

(3) If an irradiated feed ingredient is less than 5 percent of the final product, the final product can be irradiated without being considered to be re-irradiated.

[60 FR 50099, Sept. 28, 1995]

**PART 582—SUBSTANCES GENERALLY RECOGNIZED AS SAFE**

**Subpart A—General Provisions**

Sec.

- 582.1 Substances that are generally recognized as safe.
- 582.10 Spices and other natural seasonings and flavorings.
- 582.20 Essential oils, oleoresins (solvent-free), and natural extractives (including distillates).
- 582.30 Natural substances used in conjunction with spices and other natural seasonings and flavorings.
- 582.40 Natural extractives (solvent-free) used in conjunction with spices, seasonings, and flavorings.
- 582.50 Certain other spices, seasonings, essential oils, oleoresins, and natural extracts.
- 582.60 Synthetic flavoring substances and adjuvants.
- 582.80 Trace minerals added to animal feeds.
- 582.99 Adjuvants for pesticide chemicals.

**Subpart B—General Purpose Food Additives**

- 582.1005 Acetic acid.
- 582.1009 Adipic acid.
- 582.1033 Citric acid.
- 582.1057 Hydrochloric acid.
- 582.1061 Lactic acid.
- 582.1069 Malic acid.
- 582.1073 Phosphoric acid.
- 582.1077 Potassium acid tartrate.
- 582.1087 Sodium acid pyrophosphate.
- 582.1091 Succinic acid.
- 582.1095 Sulfuric acid.
- 582.1099 Tartaric acid.
- 582.1125 Aluminum sulfate.
- 582.1127 Aluminum ammonium sulfate.
- 582.1129 Aluminum potassium sulfate.
- 582.1131 Aluminum sodium sulfate.
- 582.1135 Ammonium bicarbonate.
- 582.1137 Ammonium carbonate.
- 582.1139 Ammonium hydroxide.
- 582.1141 Ammonium phosphate.
- 582.1143 Ammonium sulfate.
- 582.1155 Bentonite.
- 582.1165 Butane.
- 582.1191 Calcium carbonate.
- 582.1193 Calcium chloride.
- 582.1195 Calcium citrate.
- 582.1199 Calcium gluconate.
- 582.1205 Calcium hydroxide.
- 582.1207 Calcium lactate.
- 582.1210 Calcium oxide.
- 582.1217 Calcium phosphate.
- 582.1235 Caramel.
- 582.1240 Carbon dioxide.
- 582.1275 Dextrins.
- 582.1320 Glycerin.
- 582.1324 Glyceryl monostearate.