

## Ozone Regulations:

### USDA final rule on ozone dated 12/17/2002, FSIS Directive 7120.1

Safe and suitable ingredients used in the production of meat and poultry.

**FSIS Directive 7120.1** states: Ozone for use on all meat and poultry products. Ozone can be used in accordance with current industry standards of good manufacturing practice. No other guidelines are given on levels or dosages of ozone. (Reference 21 CFR 173.368)

### USDA CFR 173.368

*Ozone (CAS Reg. No. 10028-15-6) may be safely used in the treatment, storage, and processing of foods, including meat and poultry (unless such use is precluded by standards of identity in 9 CFR part 319), in accordance with the following prescribed conditions: (a) The additive is an unstable, colorless gas with a pungent, characteristic odor, which occurs freely in nature. It is produced commercially bypassing electrical discharges or ionizing radiation through air or oxygen. (b) The additive is used as an antimicrobial agent as defined in CFR 170.3(o)(2) of this chapter. (c) The additive meets the specifications for ozone in the Food Chemicals Codex, 4th ed. (1996), p. 277, which is incorporated by reference. The Director of the Office of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies are available from the National Academy Press, 2101 Constitution Ave. NW., Washington, DC 20055, or may be examined at the Office of Premarket Approval (HFS-200), Center for Food Safety and Applied Nutrition, Food and Drug Administration, 200 C St. SW., Washington, DC, and the Office of the Federal Register, 800 North Capitol St. NW., suite 700, Washington, DC. (d) The additive is used in contact with food, including meat and poultry (unless such use is precluded by standards of identity in 9 CFR part 319 or 9 CFR part 381, subpart P), in the gaseous or aqueous phase in accordance with current industry standards of good manufacturing practice. (e) When used on raw agricultural commodities, the use is consistent with section 201(q)(1)(B)(i) of the Federal Food, Drug, and Cosmetic Act (the act) and not applied for use under section 201(q)(1)(B)(i)(I), (q)(1)(B)(i)(II), or (q)(1)(B)(i)(III) of the act.*

### USDA Guidance on ingredients and sources of radiation used to reduce microorganisms on carcasses, ground beef, and beef trimmings:

Ozone is classified a *Secondary direct food additive/processing aid* allowable for all meat and poultry products.

### FDA Federal Register Vol. 66 No.123 June 26, 2001

The Food and Drug Administration (FDA) is amending the food additive regulations to provide for the safe use of ozone in gaseous and aqueous phases as an antimicrobial agent on food, including meat and poultry. This action is in response to a petition filed by the Electric Power Research Institute, Agriculture and Food Technology Alliance.

This rule is effective June 26, 2001.

### FDA Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables

(April 13, 1998) states that "Ozone treatment of wash and flume waters holds promise as a treatment to control microbial build-up, especially in recycled water." However, with regard to chlorine: "Fruit and vegetable tissue components and other organic matter neutralize chlorine rendering it inactive against microorganisms."

