(7) Arsenic, not more than 2 mg/kg (2 parts per million).
(8) Mercury, not more than 1 mg/kg (1 part per million).
(9) Heavy metals, not more than 10 mg/kg (10 parts per million).
(10) Assay including astaxanthin dimethyl disuccinate, astaxanthin monomethyl disuccinate, and astaxanthin containing 96 percent.

(c) Uses and restrictions. Astaxanthin dimethyl disuccinate may be safely used in the feed of salmonid fish in accordance with the following prescribed conditions:
(1) The color additive is used to enhance the pink to orange-red color of the flesh of salmonid fish.
(2) The quantity of astaxanthin dimethyl disuccinate in the finished feed, when used alone or in combination with other astaxanthin color additive sources listed in this part 73, shall not exceed 110 milligrams per kilogram (mg/kg), which is equivalent to 80 mg/kg astaxanthin (72 grams per ton).

(d) Labeling requirements. (1) The labeling of the color additive and any premixes prepared therefrom shall bear expiration dates for the sealed and open container (established through generally accepted stability testing methods), other information required by §70.25 of this chapter, and adequate directions to prepare a final product complying with the limitations prescribed in paragraph (c) of this section.
(2) The presence of the color additive in finished fish feed prepared according to paragraph (c) of this section shall be declared in accordance with §501.4 of this chapter.
(3) The presence of the color additive in salmonid fish that have been fed feeds containing astaxanthin dimethyl disuccinate shall be declared in accordance with §§101.22(b), (c), and (k)(2), and 101.100(a)(2) of this chapter.

(e) Exemption from certification. Certification of this color additive is not necessary for the protection of the public health, and therefore batches thereof are exempt from the certification requirements of section 721(c) of the act.

§ 73.50 Ultramarine blue.

(a) Identity. The color additive ultramarine blue is a blue pigment obtained by calcining a mixture of kaolin, sulfur, sodium carbonate, and carbon at temperatures above 700 °C. Sodium sulfate and silica may also be incorporated in the mixture in order to vary the shade. The pigment is a complex sodium aluminum sulfo-silicate having the approximate formula Na₇Al₆Si₆O₂₄·S₃.
§ 73.75 Canthaxanthin.

(a) Identity. (1) The color additive canthaxanthin is β-carotene-4,4′-dione.

(2) Color additive mixtures for food use made with canthaxanthin may contain only those diluents that are suitable and that are listed in this subpart as safe for use in color additive mixtures for coloring foods.

(b) Specifications. Canthaxanthin shall conform to the following specifications and shall be free from impurities other than those named to the extent that such other impurities may be avoided by good manufacturing practice:

Physical state, solid.

1 percent solution in chloroform, complete and clear.

Melting range (decomposition), 207 °C. to 212 °C. (corrected).

Loss on drying, not more than 0.2 percent.

Residue on ignition, not more than 0.2 percent.

Total carotenoids other than trans-canthaxanthin, not more than 5 percent.

Lead, not more than 10 parts per million.

Arsenic, not more than 3 parts per million.

Mercury, not more than 1 part per million.

Assay, 96 to 101 percent.

(c) Uses and restrictions. (1) The color additive canthaxanthin may be safely used for coloring foods generally subject to the following restrictions:

(i) The quantity of canthaxanthin does not exceed 30 milligrams per pound of solid or semisolid food or per pint of liquid food; and

(ii) It may not be used to color foods for which standards of identity have been promulgated under section 401 of the act unless added color is authorized by such standards.

(2) Canthaxanthin may be safely used in broiler chicken feed to enhance the yellow color of broiler chicken skin in accordance with the following conditions: The quantity of canthaxanthin incorporated in the feed shall not exceed 4.41 milligrams per kilogram (4 grams per ton) of complete feed to supplement other known sources of xanthophyll and associated carotenoids to accomplish the intended effect.

(3) Canthaxanthin may be safely used in the feed of salmonid fish in accordance with the following prescribed conditions:

(i) Canthaxanthin may be added to the fish feed only in the form of a stabilized color additive mixture;

(ii) The color additive is used to enhance the pink to orange-red color of the flesh of salmonid fish; and

(iii) The quantity of color additive in feed shall not exceed 80 milligrams per kilogram (72 grams per ton) of finished feed.

(d) Labeling requirements. (1) The labeling of the color additive and any premix prepared therefrom shall bear expiration dates (established through generally accepted stability testing methods) for the sealed and open container, other information required by § 70.25 of this chapter, and adequate directions to prepare a final product complying with the limitations prescribed in paragraph (c)(3) of this section.

(2) For purposes of coloring fish, the labeling of the color additive and any mixture prepared therefrom shall be declared in accordance with § 501.4 of this chapter.

(3) The presence of the color additive in finished fish feed prepared according to paragraph (c)(3) of this section shall be declared in accordance with § 501.4 of this chapter.