

Table 2: Artificial Food Coloring

Color Name	Heavy Metal Content	Chemical Content
FD&C Blue No. 1	Chromium not more than 50 ppm Maganese not more than 100 ppm Arsenic not more than 3 ppm Lead not more than 10 ppm	Sum of volatile matter (at 275 degrees) and chlorides and sulfates not more than 15.0%. Water-insoluble matter, not more than 0.2%. Leuco base, not more than 5%. Sum of o-, m-, and p-sulfobenzaldehydes, not more than 1.5%. N-Ethyl,N-(m-sulfobenzyl)sulfanilic acid, not more than 0.3%. Total color, not less than 85.0%
FD&C Blue No. 2	Lead not more than 10 ppm Arsenic not more than 3 ppm Mercury not more than 1 ppm	Sum of volatile matter (at 275 degrees) and chlorides and sulfates not more than 15.0%. Water insoluble matter, not more than 0.4%. Isatin-5-sulfonic acid, not more than 0.4%. 5-Sulfoanthranilic acid, not more than 0.2%. Disodium salt of 2-(1,3-dihydro-3-oxo-7-sulfo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5-sulfonic acid, not more than 18%. Sodium salt of 2-(1,3-dihydro-3-oxo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5-sulfonic acid, not more than 2%. Total color, not less than 85.0%
FD&C Green No. 3	Chromium not more than 50 ppm Arsenic not more than 3 ppm Lead not more than 10 ppm Mercury not more than 1 ppm	Sum of volatile matter (at 275 degrees) and chlorides and sulfates not more than 15.0%. Water-insoluble matter, not more than 0.2%. Leuco base, not more than 5 percent. The leuco base is oxidized with lead dioxide and acid or with dichromate and acid to form the dye. Sum of 2-,3-,4-formylbenzenesulfonic acids, sodium salts, not more than 0.5%. Sum of 3- and 4-[[ethyl(4-sulfohenyl)amino]methyl] benzenesulfonic acid, disodium salts, not more than 0.3%. 2-Formyl-5-hydroxybenzenesulfonic acid, sodium salt, not more than 0.5%. Total color, not less than 85.0%
Orange B.	Lead not more than 10 ppm Arsenic not more than 1 ppm	Volatile matter (at 135 deg.C.), not more than 6.0%. Chlorides and sulfates (calc. as the sodium salts), not more than 7.0%. Water insoluble matter, not more than 0.2%. Total color, not less than 87.0%
Citrus Red No. 2	Lead not more than 10 ppm Arsenic not more than 1 ppm	Volatile matter (at 100 deg.C.), not more than 0.5%. Water-soluble matter, not more than 0.3%. Matter insoluble in carbon tetrachloride, not more than 0.5%. Uncombined intermediates, not more than 0.05%. Total color, not less than 98.0%
FD&C Red No. 3	Lead not more than 10 ppm Arsenic not more than 3 ppm	Sum of volatile matter (at 275 degrees) and chlorides and sulfates not more than 13.0%. Water-insoluble matter, not more than 0.2%. Unhalogenated intermediates, total not more than 0.1%. Sodium iodide, not more than 0.4%. Triiodoresorcinol, not more than 0.2%. 2(2',4'-Dihydroxy-3', 5'-diiodobenzoyl) benzoic acid, not more than 0.2%. Monoiodofluoresceins not more than 1.0%. Other lower iodinated fluoresceins, not more than 9.0%. Total color, not less than 87.0%
FD&C Red No. 40	Lead not more than 10 ppm Arsenic not more than 3 ppm	Sum of volatile matter (at 275 degrees) and chlorides and sulfates not more than 14.0%. Water-insoluble matter, not more than 0.2%. Higher sulfonated subsidiary colors (as sodium salts), not more than 1.0%. Lower sulfonated subsidiary colors (as sodium salts), not more than 1.0%. Disodium salt of 6-hydroxy-5-[(2-methoxy-5-methyl-4-sulfohenyl) azo] - 8-(2-methoxy-5-methyl-4-sulfohenyloxy)-2-naphthalenesulfonic acid, ≤ 1.0%. Sodium salt of 6-hydroxy-2-naphthalenesulfonic acid (Schaeffer's salt), ≤ .3%. 4-Amino-5-methoxy-o- toluenesulfonic acid, not more than 0.2%. Disodium salt of 6,6'-oxybis (2-naphthalene-sulfonic acid)≤ 1.0%. Total color, not less than 85.0%

FD&C Yellow No. 5	<p>Lead not more than 10 ppm</p> <p>Arsenic not more than 3 ppm</p> <p>Mercury not more than 1 ppm</p>	<p>Sum of volatile matter (at 275 degrees) and chlorides and sulfates not more than 13.0%.</p> <p>Water-insoluble matter, not more than 0.2%.</p> <p>4,4'-[4,5-Dihydro-5-oxo-4-[(4-sulfophenyl)hydrazono]-1H-pyrazol-1,3-diyl]bis[benzenesulfonic acid], trisodium salt, not more than 1%.</p> <p>4-[(4',5'-Disulfo[1,1'-biphenyl]-2-yl)hydrazono]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazole-3-carboxylic acid, tetrasodium salt ≤ 1.0%</p> <p>Ethyl or methyl 4,5-dihydro-5-oxo-1-(4-sulfophenyl)-4-[(4-sulfophenyl)hydrazono]-1H-pyrazole-3-carboxylate, disodium salt, ≤ 1.0%</p> <p>Sum of 4,5-dihydro-5-oxo-1-phenyl-4-[(4-sulfophenyl)azo]-1H-pyrazole-3-carboxylic acid, disodium salt, and 4,5-dihydro-5-oxo-4-(phenylazo)-1-(4-sulfophenyl)-1H-pyrazole-3-carboxylic acid, disodium salt, ≤ .5% (4-sulfophenyl)-1H-pyrazole-3-carboxylic acid, disodium salt, ≤ .5%</p> <p>4-Aminobenzenesulfonic acid, sodium salt, not more than 0.2%.</p> <p>4,5-Dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazole-3-carboxylic acid, disodium salt, ≤ 0.2%</p> <p>Ethyl or methyl 4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazole-3-carboxylate, sodium salt, ≤ 0.1%</p> <p>4,4'-(1-Triazene-1,3-diyl)bis[benzenesulfonic acid], disodium salt, ≤ .005%</p> <p>4-Aminoazobenzene, not more than 75 ppb.</p> <p>4-Aminobiphenyl, not more than 5 ppb.</p> <p>Aniline, not more than 100 ppb.</p> <p>Azobenzene, not more than 40 ppb.</p> <p>Benzidine, not more than 1 ppb.</p> <p>1,3-Diphenyltriazene, not more than 40 ppb.</p> <p>Total color, not less than 87.0%</p>
FD&C Yellow No. 6	<p>Lead not more than 10 ppm</p> <p>Arsenic not more than 3 ppm</p> <p>Mercury not more than 1 ppm</p>	<p>Sum of volatile matter (at 275 degrees) and chlorides and sulfates not more than 13.0%.</p> <p>Water insoluble matter, not more than 0.2 %</p> <p>Sodium salt of 4-aminobenzenesulfonic acid, not more than 0.2%.</p> <p>Sodium salt of 6-hydroxy-2-naphthalenesulfonic acid, not more than 0.3%</p> <p>Disodium salt of 6,6'-oxybis[2-naphthalenesulfonic acid], not more than 1.0%</p> <p>Disodium salt of 4,4'-(1-triazene-1,3-diyl)bis[benzenesulfonic acid], ≤ .1%</p> <p>Sum of the sodium salt of 6-hydroxy-5-(phenylazo)-2-naphthalenesulfonic acid and the sodium salt of 4-[(2-hydroxy-1-naphthalenyl)azo]benzenesulfonic acid, not more than</p> <p>Sum of the trisodium salt of 3-hydroxy-4-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid and other higher sulfonated subsidiaries, ≤ 5.0%</p> <p>4-Aminoazobenzene, not more than 50 ppb.</p> <p>4-Aminobiphenyl, not more than 15 ppb.</p> <p>Aniline, not more than 250 ppb.</p> <p>Azobenzene, not more than 200 ppb.</p> <p>Benzidine, not more than 1 ppb.</p> <p>1,3-Diphenyltriazene, not more than 40 ppb.</p> <p>1-(Phenylazo)-2-naphthalenol, not more than 10 ppm.</p> <p>Total color, not less than 87.0%</p>

Source: FDA¹