
Gluten in Drug Products and Associated Labeling Recommendations Guidance for Industry

DRAFT GUIDANCE

This guidance document is being distributed for comment purposes only.

Comments and suggestions regarding this draft document should be submitted within 60 days of publication in the *Federal Register* of the notice announcing the availability of the draft guidance. Submit electronic comments to <https://www.regulations.gov>. Submit written comments to the Dockets Management Staff (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852. All comments should be identified with the docket number listed in the notice of availability that publishes in the *Federal Register*.

For questions regarding this draft document, contact (CDER) Marci Kiester 301-796-0600, or (CBER) Office of Communication, Outreach and Development, 800-835-4709 or 240-402-8010.

**U.S. Department of Health and Human Services
Food and Drug Administration
Center for Drug Evaluation and Research (CDER)
Center for Biologics Evaluation and Research (CBER)**

**December 2017
Labeling**

Gluten in Drug Products and Associated Labeling Recommendations Guidance for Industry

Additional copies are available from:

*Office of Communications, Division of Drug Information
Center for Drug Evaluation and Research*

Food and Drug Administration

10001 New Hampshire Ave., Hillandale Bldg., 4th Floor

Silver Spring, MD 20993-0002

Phone: 855-543-3784 or 301-796-3400; Fax: 301-431-6353

Email: druginfo@fda.hhs.gov

<https://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/default.htm>

and/or

Office of Communication, Outreach and Development

Center for Biologics Evaluation and Research

Food and Drug Administration

10903 New Hampshire Ave., Bldg. 71, Room 3128

Silver Spring, MD 20993-0002

Phone: 800-835-4709 or 240-402-8010

Email: ocod@fda.hhs.gov

<https://www.fda.gov/BiologicsBloodVaccines/GuidanceComplianceRegulatoryInformation/Guidances/default.htm>

**U.S. Department of Health and Human Services
Food and Drug Administration
Center for Drug Evaluation and Research (CDER)
Center for Biologics Evaluation and Research (CBER)**

**December 2017
Labeling**

Contains Nonbinding Recommendations

Draft — Not for Implementation

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	DISCUSSION	2
A.	Possible Sources and Amounts of Gluten in Oral Drug Products	2
	1. <i>Wheat Gluten as an Ingredient</i>	2
	2. <i>Wheat Gluten as an Impurity in Ingredients Derived From Wheat</i>	3
	3. <i>Wheat Gluten as an Adventitious Contaminant</i>	6
B.	Labeling	6
	1. <i>Ingredient Labeling: Current Regulations and Practice</i>	7
	2. <i>Established Names</i>	8
	3. <i>Section 502(f) of the FD&C Act.....</i>	9
III.	RECOMMENDATIONS.....	9
A.	Voluntary Statements Regarding Gluten	9
	1. <i>Statements on Labels or in Required Labeling</i>	9
	2. <i>Supporting Information.....</i>	10
B.	Submission and Adoption.....	11
	1. <i>Oral Drug Products With New or Pending Applications</i>	11
	2. <i>Oral Drug Products With Approved Applications.....</i>	11
	3. <i>Oral Drug Products With Approved Applications That Already Include a Statement About Gluten Other Than the Recommended Labeling Statement.....</i>	12
	4. <i>Nonapplication Oral Drug Products</i>	12
C.	Placement of a Voluntary Gluten Labeling Statement.....	13
	1. <i>Prescription Oral Drug Products</i>	13
	2. <i>Nonprescription Oral Drug Products.....</i>	13
IV.	REFERENCES.....	13

Contains Nonbinding Recommendations

Draft — Not for Implementation

1 **Gluten in Drug Products and Associated Labeling**
2 **Recommendations**
3 **Guidance for Industry¹**
4

5
6 This draft guidance, when finalized, will represent the current thinking of the Food and Drug
7 Administration (FDA or Agency) on this topic. It does not establish any rights for any person and is not
8 binding on FDA or the public. You can use an alternative approach if it satisfies the requirements of the
9 applicable statutes and regulations. To discuss an alternative approach, contact the FDA staff responsible
10 for this guidance as listed on the title page.
11

12
13
14
15 **I. INTRODUCTION**
16

17 This guidance is intended to convey to drug manufacturers FDA’s recommendations on how
18 certain drug products should be labeled regarding gluten, a matter of interest to individuals with
19 celiac disease. Some individuals with celiac disease have faced difficulty when trying to
20 determine whether specific drug products contain gluten. Confronted by uncertainty, some
21 patients may forego important medication rather than risk an adverse reaction to gluten. Thus,
22 even if gluten is not present at levels that would harm a typical individual with celiac disease,
23 that individual may be harmed through uncertainty and lack of information.
24

25 Celiac disease (also known as celiac sprue) is an immune-based reaction to dietary gluten that
26 primarily affects the small intestine in susceptible individuals; unmanaged celiac disease can lead
27 to serious health complications. Approximately 1 percent of the U.S. population has celiac
28 disease (Binder 2015). It is characterized by ongoing inflammation of part of the lining of the
29 small intestine that generally heals if foods containing gluten are excluded from the diet and
30 returns if they are reintroduced. At this time, the treatment for celiac disease is adherence to a
31 gluten-free diet.
32

33 FDA’s food labeling regulations define *gluten* as “proteins that naturally occur in [wheat, barley,
34 and rye or their crossbred hybrids] and that may cause adverse health effects in persons with
35 celiac disease (e.g., prolamins and glutelins)” (21 CFR 101.91(a)). Consistent with this
36 definition, the term *gluten* in this document refers to certain proteins found in wheat, barley, and
37 rye or their crossbred hybrids that lead to symptoms associated with celiac disease.
38

39 This guidance pertains to human drug products that pass through the small intestine:
40
41

¹ This guidance has been prepared by the Center for Drug Evaluation and Research in cooperation with the Center for Biologics Evaluation and Research at the Food and Drug Administration.

Contains Nonbinding Recommendations

Draft — Not for Implementation

- 42 • Orally ingested drug products.²
- 43
- 44 • Topical drug products applied to or near the lips (e.g., lip sunscreens).³
- 45
- 46 • Drug products applied inside the mouth (e.g., cold sore treatments, drugs delivered to or
- 47 via the oral cavity).
- 48

49 In this guidance, *oral drug product* refers to this group of products. Gluten is not believed to
50 harm individuals with celiac disease through routes of exposure other than oral or enteral
51 ingestion.

52

53 This guidance was developed with celiac disease in mind. However, the recommendations in this
54 guidance may be of interest to patients with other conditions that are treated with a gluten-free
55 diet.

56

57 This guidance does not apply to food (including dietary supplements) or products regulated
58 solely as cosmetics.⁴ In addition, this guidance does not discuss labeling recommendations
59 regarding wheat hypersensitivity.

60

61 In general, FDA’s guidance documents do not establish legally enforceable responsibilities.
62 Instead, guidances describe the Agency’s current thinking on a topic and should be viewed only
63 as recommendations, unless specific regulatory or statutory requirements are cited. The use of
64 the word *should* in Agency guidances means that something is suggested or recommended, but
65 not required.

66

67 **II. DISCUSSION**

68

69 **A. Possible Sources and Amounts of Gluten in Oral Drug Products**

70

71 Wheat is not used to a significant extent in the production of drug ingredients, and barley and rye
72 are used either rarely or not at all.

73

74 *1. Wheat Gluten as an Ingredient*

75

76 Wheat gluten itself is never or very rarely added as an inactive ingredient to oral drug products
77 during manufacture.⁵ As discussed in section II.B of this guidance, any oral drug product that

² The term *drug products* includes drugs subject to licensing as biological products.

³ This includes topical drug products that are also cosmetics, such as lipsticks that are also sunscreens.

⁴ For regulations pertaining to “gluten-free” labeling of foods, see 21 CFR 101.91.

⁵ In this guidance, when we say *added as an ingredient*, we are referring to the intentional and purposeful addition of that ingredient. We are not referring to the introduction of wheat gluten, for example, as an unintended contaminant or impurity associated with an ingredient. Based on information available to us during our analyses for this guidance, we are aware of no oral drug products currently marketed in the United States that contain wheat gluten intentionally added as an inactive ingredient.

Contains Nonbinding Recommendations

Draft — Not for Implementation

78 contains wheat gluten as an intentionally added ingredient should be labeled to indicate its
79 presence.

80
81 Although the use of wheat gluten as an inactive ingredient in drug products does not generally
82 mean that the product will fail to satisfy applicable requirements for safety, we may question the
83 addition of wheat gluten to certain oral drug products on a case-by-case basis. We would be
84 more likely to question the use of wheat gluten as an ingredient in an oral drug product for which
85 few or no alternative treatments are available. We would also be more likely to question its use
86 as an ingredient in an oral drug product intended for long-term administration or intended to treat
87 comorbidities of celiac disease.

88
89 The level at which wheat gluten would be present in an oral drug product—if added as an
90 ingredient—is directly controlled by the drug manufacturer. In the absence of more detailed
91 information regarding wheat gluten amounts, individuals with celiac disease may choose to
92 avoid oral drug products that are labeled as containing wheat gluten as an ingredient.

2. Wheat Gluten as an Impurity in Ingredients Derived From Wheat

93
94
95
96 Apart from its possible addition to oral drug products as an inactive ingredient—something that
97 rarely, if ever, occurs—wheat gluten may be present at low levels as an impurity in ingredients
98 that are derived from wheat, such as wheat starch.

99
100 In this section, we identify drug ingredients and categories of ingredients derived or potentially
101 derived from wheat, and we estimate how much gluten they may contribute to a unit dose of an
102 oral drug product. In general, the quantities we estimate to be present are low and do not exceed
103 the amounts of gluten that could be found in food products labeled gluten-free under FDA’s
104 regulations (21 CFR 101.91). We present this analysis because (1) it has informed our thinking
105 about regulatory options associated with gluten in oral drug products, (2) we would like drug
106 manufacturers to consider the information in this section and review the ingredients they use in
107 their drug products, and (3) if the information or assumptions underlying our analysis are proven
108 incorrect, we would reconsider available regulatory options.

109
110 Drug manufacturers are in the best position to review their specific formulations for oral drug
111 products and to question their ingredient suppliers about ingredients potentially derived from
112 wheat, purification methods, and analytical testing results. We urge manufacturers to consider
113 gluten content when formulating products using ingredients potentially derived from wheat or
114 wheat starch.

a. Wheat flour

115
116
117
118 We are aware that some manufacturers have reported the direct addition of wheat flour to oral
119 drug products in the past—but only very rarely. We are not aware of an oral drug product
120 currently being marketed in the United States that contains wheat flour as an ingredient. As
121 discussed in section II.B of this guidance, any oral drug product that contains wheat flour as an
122 intentionally added ingredient should be labeled to indicate its presence.

123

Contains Nonbinding Recommendations

Draft — Not for Implementation

124 The total protein content of wheat flour is generally 13 percent, with gluten representing part of
125 the total protein.⁶ The amount of gluten present in an oral drug product to which wheat flour has
126 been added as an ingredient would depend on how much wheat flour is used. Because use of
127 wheat flour in any drug product is so rare, we do not have good information regarding upper,
128 lower, and typical levels that would be present in a drug product. We believe individuals with
129 celiac disease might choose to avoid oral drug products that are labeled as containing wheat flour
130 in the absence of more detailed information about the drug product's gluten content.

131 b. Wheat starch

132
133 As with wheat gluten and wheat flour, we believe wheat starch is added to oral drug products as
134 an ingredient only very rarely. Other sources of starch (e.g., corn, potato) are more commonly
135 used in pharmaceutical products. As discussed in section II.B of this guidance, any oral drug
136 product that contains wheat starch as an intentionally added ingredient should be labeled to
137 indicate its presence.
138

139 A monograph for wheat starch in the National Formulary (NF) includes a 0.3 percent limit on
140 total protein but does not include a limit on gluten content.⁷ The gluten content will be some
141 proportion of the total protein content. Based on published information, we understand the gluten
142 content of wheat starch suitable for use in drug products is variable but is typically in the range
143 of 100 to 500 mg/kg (see, e.g., Kasarda, Dupont, et al. 2008). Based on our review of drug
144 formulation information, we expect wheat starch—in the rare cases in which it is used in oral
145 drug products—to contribute less than 0.1 mg gluten to a unit dose of an oral drug product.
146

147 c. Ingredients derived from starch

148
149 Starch is used as a starting material for manufacturing various ingredients added to oral drug
150 products. The starch used for this purpose is often corn or potato starch, not wheat starch.
151 Nevertheless, we recognize that very small amounts of wheat gluten may be present in starch-
152 derived ingredients if wheat starch is used as the starting material.
153

154 Ingredients in this category—*potentially* derived from wheat starch—include modified starch,
155 pregelatinized starch, and sodium starch glycolate. This category also includes starch
156 hydrolysates (e.g., maltodextrin, dextrans, dextrose, maltose, and sugar alcohols such as sorbitol,
157 xylitol, maltitol, and mannitol) and hydrogenated starch hydrolysates (mixtures of sugar
158 alcohols).
159

160 As with wheat starch, compendial monographs for these ingredients do not include specific
161 limits on gluten content. We have found published reports regarding the gluten content for only a
162 limited number of ingredients derived from wheat starch. In the absence of such specific
163 information, we have made the conservative assumption that wheat-derived modified starches
164

⁶ According to the International Starch Institute, the typical value of total protein in wheat flour on a dry matter basis is 13 percent. See the Institute's Technical Memorandum on Wheat Starch, available at <http://www.starch.dk/isi/starch/tm33wheat.asp>, accessed August 2017.

⁷ NF 35 Monograph: Wheat Starch, current at the time of this publication.

Contains Nonbinding Recommendations

Draft — Not for Implementation

165 (e.g., modified starch, pregelatinized starch, sodium starch glycolate), although more highly
166 processed than wheat starch, might contain gluten at the same concentrations at which gluten
167 might be found in wheat starch: 100–500 mg/kg. Based on published literature, we believe that
168 starch hydrolysates and hydrogenated starch hydrolysates derived from wheat may contain up to
169 40 mg/kg gluten (European Food Safety Authority 2007). Based on drug formulation
170 information, we estimate that these ingredients may contribute less than 0.5 mg gluten to a unit
171 dose of an oral drug product.

d. Ingredients produced through fermentation

172
173
174
175 Some ingredients, including citric acid and ethanol, may be produced by fermentation, in which
176 microorganisms feed on carbohydrates from plant sources that potentially include wheat. See, for
177 example, 21 CFR 184.1033, which describes the production of food-grade citric acid by various
178 methods, including fermentation. If the fermentation medium includes wheat or wheat-derived
179 ingredients, an ingredient produced by fermentation may—depending on how it is purified—
180 contain small amounts of gluten. Compendial monographs for these ingredients do not include
181 gluten limits.

182
183 In some cases, an ingredient such as ethanol⁸ may be purified through distillation. It is unlikely
184 that gluten (or any protein) would be present in ethanol purified by distillation using good
185 manufacturing practices, considering the high volatility of ethanol compared with the much
186 lower volatility of a large molecule such as gluten.

187
188 In other cases, the ingredient is highly purified through other means. Anhydrous citric acid, USP,
189 for example, is not less than 99.5 percent pure. We expect the presence of any residual gluten in
190 such ingredients to be very low. Based on drug formulation information we have reviewed, we
191 expect ingredients produced through fermentation to contribute no more than 0.5 mg gluten to a
192 unit dose of an oral drug product.

193
194 As with all of our estimates presented above, there is some uncertainty surrounding the amount
195 of gluten that may be present in drug ingredients produced through fermentation. A more certain
196 estimate would require production information or analytical test results covering multiple
197 batches of the full range of ingredients made by producers around the world. In the absence of
198 such information, we have relied on total protein limits in compendial monographs and published
199 reports covering certain ingredients.

e. Wheat germ oil

200
201
202
203 We are aware that wheat germ oil⁹ may be used as an ingredient in certain products applied
204 topically to the lips or skin, such as lip balms or sunscreen products. If the wheat germ oil is
205 highly refined, it is unlikely to contain detectable amounts of gluten. Even if the oil is not highly

⁸ Alcohol, USP. (USP=United States Pharmacopeia.)

⁹ Sometimes identified as *Triticum vulgare* (wheat) germ oil.

Contains Nonbinding Recommendations

Draft — Not for Implementation

206 refined, we believe the presence of any gluten in a product applied topically to the lips would be
207 very low, and any oral ingestion of gluten associated with the product would be insignificant.

208

209 3. *Wheat Gluten as an Adventitious Contaminant*

210

211 In theory, wheat gluten that is not associated with a wheat-derived ingredient could be
212 introduced into an oral drug product as an adventitious contaminant (e.g., as a result of contact
213 with gluten during manufacture, processing, transportation, or storage). Although we do not have
214 systematic data in this area, we expect that any gluten present adventitiously in oral drug
215 products would be present only in very small amounts. In all likelihood, the amount of gluten
216 would be below the limits of detection associated with current analytical test methods. It is also
217 likely that the amount of gluten would be well below the levels we have estimated an inactive
218 ingredient, such as wheat starch, could potentially contribute to an oral drug product. Current
219 good manufacturing practice (CGMP) regulations for drug products reflect a basic obligation to
220 prevent contamination of a drug being processed,¹⁰ and a violation of the CGMP regulations can
221 result in an enforcement action. FDA would consider taking action if an oral drug product were
222 found to contain significant amounts of gluten as a contaminant.

223

224 **B. Labeling**

225

226 If a drug included an ingredient derived from wheat, barley, or rye, the ingredient would most
227 likely be wheat-derived. The amount of gluten potentially contributed by a wheat-derived
228 ingredient to a unit dose of an oral drug product (unless that ingredient is wheat gluten itself or
229 wheat flour) is expected to be less than 0.5 mg, as a high estimate.¹¹ As discussed in section II.A
230 of this guidance, most oral drug products are not expected to contain ingredients derived from
231 wheat, barley, or rye. The likelihood of them including more than one such ingredient is even
232 less. Thus, it is expected that the amount of gluten potentially present in a unit dose of an oral
233 drug product is less than the amount of gluten that could potentially be found in a single serving
234 of a cookie (30 grams) labeled *gluten-free* in accordance with FDA's regulations at 21 CFR
235 101.91 (if all of the criteria of that regulation are satisfied).¹² Moreover, the amount of gluten
236 estimated to be potentially present in a unit dose of an oral drug product (less than 0.5 mg) is
237 significantly less than the range at which gluten is estimated to be present in a gluten-free diet (5
238 to 50 mg) (La Vieille, Dubois, et al. 2014; Catassi, Fabiani, et al. 2007).¹³ This leads FDA to
239 conclude that individuals who respond well to a gluten-free diet are at low risk of experiencing
240 problems as a result of the possible presence of gluten in a drug product. However, we expect

¹⁰ See generally Current Good Manufacturing Practice for Finished Pharmaceuticals, 21 CFR part 211.

¹¹ Our estimate is based on assumptions regarding gluten content and ingredient usage that favor a high estimate (i.e., we considered high levels of use for each inactive ingredient potentially derived from wheat, and we considered the high end of the range at which gluten is reasonably expected to be present in each ingredient).

¹² A 30-gram serving of food, corresponding to a single cookie, for example, could contain up to 0.6 mg gluten while bearing a gluten-free statement if the criteria for the definition of *gluten-free* are satisfied. 30 grams x 20 ppm=0.6 mg. See reference amounts customarily consumed per eating occasion in FDA's food labeling regulations, 21 CFR 101.12, Table 2.

¹³ We recognize that gluten-free diets may be highly variable, and individuals diagnosed with refractory celiac disease may have more restrictive diets.

Contains Nonbinding Recommendations

Draft — Not for Implementation

241 that they might choose to avoid using oral drug products labeled as containing *wheat gluten* or
242 *wheat flour* as an ingredient in the absence of more information about the product’s actual gluten
243 content.

244
245 We have also considered the potential impact on those individuals with celiac disease who take
246 multiple oral medications each day. Considering that inactive ingredients are typically derived
247 from sources other than wheat, and that 0.5 mg of gluten per unit dose is a high estimate for
248 gluten in an oral drug product, we expect that an individual taking multiple drug products per
249 day would ingest much less gluten, if any, from drugs than an individual with celiac disease
250 adhering to a gluten-free diet may ingest from food.

251
252 Some celiac patients are more sensitive to gluten than others and do not respond well to a gluten-
253 free diet.¹⁴ Patients who are more sensitive to gluten will likely seek to eliminate all sources of
254 ingested gluten, or at least minimize exposure as much as possible. In all probability, these
255 patients are under specialized care and would avoid those rare oral drug products containing
256 added wheat starch in addition to those containing added wheat gluten or wheat flour.
257 Additionally, they or their caregivers would likely reach out to physicians, pharmacists, other
258 health care providers, or drug manufacturers for information about possible inclusion of wheat-
259 derived ingredients in their oral drug products. We encourage drug manufacturers to have
260 accurate information on the sources of their ingredients available so they can respond to
261 questions from the public and health care providers.

1. Ingredient Labeling: Current Regulations and Practice

262
263
264
265 As described below, drug ingredients are generally identified in labeling, but substances that are
266 present merely as impurities generally are not.

a. Nonprescription (over-the-counter) oral drug products¹⁵

267
268
269
270 Nonprescription drug labels must list “the established name of each inactive ingredient” under
271 the “Inactive ingredients” heading of the Drug Facts label, which appears on the “outside
272 container or wrapper of the retail package, or the immediate container label if there is no outside
273 container or wrapper.”¹⁶ This information is visible to consumers at the time of purchase.¹⁷

274
275

¹⁴ See current guidelines for the diagnosis and management of celiac disease, such as those published by the American College of Gastroenterology (Rubio-Tapia, Hill, et al. 2013).

¹⁵ The Introduction defines *oral drug products* for the purposes of this guidance.

¹⁶ See 21 CFR 201.66(c), 201.66(d)(8).

¹⁷ See 21 U.S.C. 321(k), 352(c).

Contains Nonbinding Recommendations

Draft — Not for Implementation

b. Prescription oral drug products

Although not currently mandated by FDA’s regulations, manufacturers of prescription oral drug products generally provide a list of inactive ingredients in the DESCRIPTION section of the prescribing information.¹⁸

Drugs that are licensed biological products (i.e., they are regulated under a biologics license application (BLA)) are subject to additional labeling requirements described in 21 CFR part 610, subpart G. In particular, 21 CFR 610.61 requires identification of certain types of inactive ingredients, including preservatives, “known sensitizing substances,” and “inactive ingredients when a safety factor.”

We interpret the requirement that inactive ingredients be identified in the labeling of biological products “when a safety factor” as meaning that *wheat gluten* and *wheat flour* must be identified by those names if they are present in orally administered biological products.

2. Established Names

According to section 502(e)(3) of the Federal Food, Drug, and Cosmetic Act (FD&C Act), the term *established name* means (a) the official name designated pursuant to section 508;¹⁹ (b) if there is no such name, the title of a monograph for the ingredient in an official compendium;²⁰ or (c) the “common or usual name” if neither (a) nor (b) applies.

Consistent with this provision, the established name used in labeling for any wheat-derived ingredient that is the subject of a monograph in an official compendium must be the monograph title, where there is no official name designated pursuant to section 508. For example, *wheat starch* (not *starch*) is the established name by which wheat starch must be identified in drug labeling. However, the more highly processed ingredients discussed in section II.A of this guidance (ingredients derived from starch and ingredients produced by fermentation) do not include a botanical source such as wheat in the established name of the ingredient because the titles of their compendial monographs do not include this designation.

If an ingredient is not recognized in an official compendium and does not have an applicable official name designated pursuant to section 508 of the FD&C Act, then it must be identified in

¹⁸ See 21 CFR 201.57 and 201.80. Licensed biological products that meet the statutory definition of drugs under section 201(g) of the Federal Food, Drug, and Cosmetic Act (FD&C Act) are subject to the labeling requirements of part 201 (except as otherwise indicated, e.g., section 201.1(m)) and drug labeling provisions of the FD&C Act, and thus also bear labeling in Physician Labeling Rule (PLR) format or non-PLR format.

¹⁹ We do not routinely designate official names for excipients; see 21 CFR 299.4(e).

²⁰ An official compendium is one cited in the FD&C Act. This includes the USP, NF, and the Homeopathic Pharmacopoeia of the United States. See section 201(g) of the FD&C Act.

Contains Nonbinding Recommendations

Draft — Not for Implementation

310 labeling by its common or usual name.²¹ Wheat gluten and wheat flour fall into this category,
311 and we consider *wheat gluten* and *wheat flour* to be their appropriate common or usual names.²²

312

313 3. *Section 502(f) of the FD&C Act*

314

315 Section 502(f) of the FD&C Act states that a drug “shall be deemed to be misbranded . . . unless
316 its labeling bears . . . such adequate warnings against use in those pathological conditions . . .
317 where its use may be dangerous to health . . . in such manner and form, as are necessary for the
318 protection of users.”

319

320 We are not aware of any currently marketed oral drug product that contains wheat gluten as an
321 intentionally added inactive ingredient. If such a product exists, we would expect *wheat gluten* to
322 be included in its labeled list of inactive ingredients. If the labeling fails to disclose wheat gluten
323 as an inactive ingredient, we would consider whether the product is misbranded under section
324 502(f) or other authorities (e.g., 21 CFR 201.66(c)(8)) in the case of a nonprescription oral drug
325 product).

326

III. RECOMMENDATIONS

327

328
329 We encourage drug manufacturers to have accurate information about their products’ gluten
330 content available so they can respond to questions from consumers and health care professionals.
331 Manufacturers should pay attention to possible sources of gluten in their products, consider
332 specifications when appropriate, and consider the impact of changes in ingredient sources or
333 formulations on gluten content.

334

A. Voluntary Statements Regarding Gluten

335

336 1. *Statements on Labels or in Required Labeling*

337

338
339 We recommend that drug manufacturers that wish to make statements about gluten anywhere on
340 oral drug product labels or in required labeling use the following statement, when it is truthful
341 and substantiated:

342

343 **Contains no ingredient made from a gluten-containing grain (wheat, barley,
344 or rye).**²³

345

346 We would interpret such a statement to mean that the manufacturer knows that no ingredient in
347 the product was derived directly or indirectly from wheat, barley, or rye or their crossbred
348 hybrids. This would preclude, for example, the use of ingredients derived from wheat starch or
349 from starch of unknown botanical origin. It would also preclude the use of ingredients produced

²¹ See section 502(e)(3) of the FD&C Act.

²² *Wheat gluten* is the name given to the ingredient in FDA’s GRAS (generally recognized as safe) affirmation regulation for wheat gluten (21 CFR 184.1322). See also 21 CFR 137.105, which specifically mentions wheat flour.

²³ For the remainder of this guidance, we use the phrase *recommended labeling statement* to mean this statement or minor variations with equivalent meaning and specificity.

Contains Nonbinding Recommendations

Draft — Not for Implementation

350 through a fermentation process if the fermentation medium is not known to be free of ingredients
351 derived from wheat, barley, or rye or their crossbred hybrids. Substantiation for such a statement
352 is discussed in section III.A.2 of this guidance.

353
354 We encourage use of this recommended labeling statement to provide health care professionals
355 and consumers with consistent, clear, accurate, and readily understood information about the
356 gluten content of the pharmaceutical products they use. Furthermore, this phrase allows easy
357 searching for terms such as *gluten* and *wheat*. This recommended labeling statement does not
358 describe a drug as *gluten-free* because we have not established criteria for gluten-free statements
359 on oral drug products, and it may be difficult to substantiate that a drug product is free of gluten.
360 We are not aware of analytical test methods currently validated to detect or quantify gluten in
361 finished drug products or in drug ingredients at the low levels at which it would generally be
362 expected to be present, if at all. Furthermore, we have not determined whether a gluten-free
363 statement on an oral drug product should refer to an absence of intact gluten or whether such a
364 statement should also require an absence of gluten peptides.

2. *Supporting Information*

366
367
368 Firms are responsible for the truthfulness of their gluten-related labeling statements and for
369 ensuring that the information related to their oral drug products supports the use of such
370 statements.²⁴ Firms should also have supporting information available, including information
371 from ingredient suppliers about their processes and raw materials. Indeed, CGMP regulations
372 include recordkeeping requirements encompassing information that may be relevant.²⁵

373
374 For firms wishing to use the recommended labeling statement, substantiation for such a
375 statement should include a written commitment from ingredient suppliers that, for each
376 ingredient potentially derived from wheat, barley, rye, or their crossbred hybrids or produced
377 through fermentation, these grains are not used in the production of the ingredient.

378
379 For statements other than the recommended labeling statement, the supporting information could
380 vary by product. For example, firms may be able to test individual wheat-derived ingredients for
381 the absence of nitrogen (indicating an absence of all protein, including gluten), or they may be
382 able to provide information demonstrating that the processing of such ingredients removes the
383 gluten. If such ingredient testing is conducted, the manufacturing records²⁶ must include the
384 results of any tests and the conclusions derived from them.²⁷ These records must be readily
385 available to FDA for authorized inspection.²⁸

386

²⁴ See section 502(a) of the FD&C Act (21 U.S.C. 352(a)).

²⁵ See, e.g., 21 CFR 210.3(b)(3), 211.180(c), 211.184(c), 211.186(b)(9), 211.194(a).

²⁶ In this guidance, we use *manufacturing records* as an umbrella term to refer to the records discussed in 21 CFR 211.184–211.194.

²⁷ See 21 CFR 211.184(b).

²⁸ See 21 CFR 211.180(c).

Contains Nonbinding Recommendations

Draft — Not for Implementation

387 **B. Submission and Adoption**

388

389 1. *Oral Drug Products With New or Pending Applications*

390

391 An applicant submitting a new drug application (NDA), abbreviated new drug application
392 (ANDA), or BLA that wishes to use the recommended labeling statement must ensure that its use
393 is consistent with the information in the application related to the oral drug product ingredients.²⁹

394 We are not asking that applicants submit additional specific information to their applications,
395 such as the supplier agreements referred to above, but applicants should ensure that such
396 information is available. An applicant that wishes to use an alternative statement should propose
397 in the application how it intends to support the alternative statement.

398

399 2. *Oral Drug Products With Approved Applications*

400

401 An NDA, ANDA, or BLA holder with an approved application who seeks to change a product
402 formulation to make a gluten statement should refer to relevant regulations and guidance
403 regarding submission requirements associated with the formulation changes.³⁰

404

405 An NDA, ANDA, or BLA holder seeking to include the recommended labeling statement who
406 can properly substantiate it without changes to the approved product formulation may revise
407 labeling at any time to do so. The addition of the recommended labeling statement may then be
408 reported in the next annual report, pursuant to 21 CFR 314.70(a)(3) and 601.12(a)(3).³¹

409

410 An NDA, ANDA, or BLA holder wishing to use an alternative statement must submit the
411 proposed statement and information that supports its use in a prior approval supplement (PAS).
412 The addition of an alternative statement that communicates something different from or in
413 addition to the absence of ingredients made from gluten-containing grains (wheat, barley, or rye)
414 requires the submission and review of data not already included in the application.³²

415

416 Regarding labeling requirements specific to generic drugs, a firm marketing a product described
417 in an ANDA can include either the recommended labeling statement or an alternative statement
418 addressing gluten—even if the reference listed drug (RLD) for the product described in the
419 ANDA does not include such a statement—as long as the submission provisions described above

²⁹ See section 502(a) of the FD&C Act (21 U.S.C. 352(a)).

³⁰ See 21 CFR 314.70(b)(2)(i), 601.12(b)(2)(i) and relevant FDA guidance documents including *Changes to an Approved NDA or ANDA* and the *Scale-Up and Post-Approval Changes (SUPAC)* documents. We update guidances periodically. For the most recent version of a guidance, check the FDA Drugs guidance Web page at <https://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/default.htm>.

³¹ Under 21 CFR 314.70(b)(2)(v)(A) and 601.12(f)(1), a labeling change that does not fall into enumerated categories is to be submitted as a prior approval supplement (PAS). However, under 21 CFR 314.70(a)(3) and 601.12(a)(3), an applicant is required to make a change in accordance with a regulation or guidance that provides for a less burdensome notification of the change than a PAS. Pursuant to these regulations, we are providing that notification may be made in an annual report when labels or labeling are changed to include the recommended labeling statement, without other changes to the product.

³² See 21 CFR 314.70(b)(2)(v)(A), 601.12(f)(1).

Contains Nonbinding Recommendations

Draft — Not for Implementation

420 are satisfied and the recommended labeling statement is properly substantiated or the alternative
421 statement is approved. Conversely, if the RLD for a product described in an ANDA includes
422 either the recommended labeling statement or an alternative statement addressing gluten, the
423 product described in the ANDA is not required to include such a statement in its labeling to
424 comply with the same labeling requirement that applies to ANDAs. Although the labeling of a
425 product described in an ANDA and its RLD must generally be the same, an exception is made
426 for differences attributable to the products being produced or distributed by different
427 manufacturers. Such differences may include differences in labeling to reflect permissible
428 differences in the formulation of the drug products (such as permissible differences in inactive
429 ingredients) and labeling revisions made to comply with current FDA labeling guidelines or
430 other guidance. See section 505(j)(2)(A)(v) of the FD&C Act and 21 CFR 314.94(a)(8)(iv).

431
432 3. *Oral Drug Products With Approved Applications That Already Include a*
433 *Statement About Gluten Other Than the Recommended Labeling Statement*
434

435 We are aware that some marketed oral drug products already include a gluten labeling statement
436 other than the recommended labeling statement described in this guidance. Firms are encouraged
437 to determine whether they will revise their labeling to use the recommended labeling statement
438 or whether they have an adequate basis for the continued use of an alternative statement.

439
440 If a firm chooses to adopt the recommended labeling statement and this action does not require
441 changes in the product formulation (or is not combined with another change that requires
442 submission of a supplement), the firm may submit this labeling change in an annual report to the
443 NDA, ANDA, or BLA (21 CFR 314.70(a)(3), 601.12(a)(3)).

444
445 However, if adopting a gluten labeling statement requires changes in the product formulation (or
446 is combined with other labeling changes that require a PAS), the application holder must submit
447 the change in a PAS.³³

448
449 4. *Nonapplication Oral Drug Products*
450

451 For oral drug products marketed without an application, firms may revise their labeling to adopt
452 the recommended labeling statement if the statement is truthful and substantiated.

453
454 As noted above, if an oral drug product's labeling already includes a gluten statement, firms are
455 encouraged to review this guidance and determine whether they will revise their labeling to use
456 the recommended labeling statement. If a firm wishes to continue to use a labeling statement
457 other than the recommended labeling statement, the firm is responsible for the truthfulness of
458 such a statement and for ensuring that the information related to the oral drug product supports
459 its use.³⁴

460

³³ See 21 CFR 314.70(b)(2)(i), 601.12(b)(2)(i).

³⁴ See section 502(a) of the FD&C Act (21 U.S.C. 352(a)).

Contains Nonbinding Recommendations

Draft — Not for Implementation

461 **C. Placement of a Voluntary Gluten Labeling Statement**

462

463 *1. Prescription Oral Drug Products*

464

465 When used, a voluntary gluten statement should be included in the DESCRIPTION section of
466 the prescribing information. Specifically, it should appear at the end of the inactive ingredients
467 list. If the oral drug product has associated FDA-approved patient labeling, the statement should
468 also appear in that patient labeling, either at the end of an inactive ingredients list or at the end of
469 the patient labeling, after the name and address of the manufacturer, packer, or distributor. In
470 addition, if a voluntary gluten statement is included on the immediate container label and, if
471 applicable, carton labeling, it should appear on the side or back panel. The statement should not
472 appear on the principal display panel, to avoid interference with the required or recommended
473 information that appears on labels and labeling.³⁵

474

475 *2. Nonprescription Oral Drug Products*

476

477 Voluntary gluten statements should be visible at the time of purchase and should appear on the
478 immediate container label and carton labeling in a location outside of the Drug Facts label. The
479 statement must not interfere with the required information that appears on labels and labeling.³⁶

480

481 **IV. REFERENCES**

482

483 Binder, HJ, 2015, Disorders of Absorption. In: D Kasper, A Fauci, S Hauser, D Longo, JL
484 Jameson, J Loscalzo, eds. Harrison's Principles of Internal Medicine, 19th ed., New York:
485 McGraw-Hill Education.

486

487 Catassi, C, E Fabiani, et al., 2007, A Prospective, Double-Blind, Placebo-Controlled Trial To
488 Establish a Safe Gluten Threshold for Patients With Celiac Disease, *Am J Clin Nutr*, 85:160–
489 166.

490

491 European Food Safety Authority, 2007, Opinion of the Scientific Panel on Dietetic Products,
492 Nutrition and Allergies on a Request From the Commission Related to a Notification From AAC
493 on Wheat-Based Maltodextrins Pursuant to Article 6, Paragraph 11 of Directive 2000/13/EC,
494 *The EFSA Journal*, 487:1–7.

495

496 Kasarda, DD, FM Dupont, et al., 2008, Surface-Associated Proteins of Wheat Starch Granules:
497 Suitability of Wheat Starch for Celiac Patients, *J Agric Food Chem*, 56:10292–10302.

498

³⁵ The prominence, placement, font, and color should be consistent with the concepts described in the draft guidance for industry *Safety Considerations for Container Labels and Carton Labeling Design to Minimize Medication Errors*. When final, this guidance will represent the FDA's current thinking on this topic. See also section 502(c) of the FD&C Act (21 U.S.C. 352(c)) and 21 CFR 201.15, on prominence of required labeling information.

³⁶ The general labeling requirements in 21 CFR part 201 specify which information must be included on a drug product's labeling and how the information should be presented, among other things. See also section 502(c) of the FD&C Act (21 U.S.C. 352(c)) and 21 CFR 201.15, on prominence of required labeling information.

Contains Nonbinding Recommendations

Draft — Not for Implementation

- 499 La Vieille, S, S Dubois, et al., 2014, Estimated Levels of Gluten Incidentally Present in a
500 Canadian Gluten-Free Diet, *Nutrients*, 6:881–896.
501
502 Rubio-Tapia, A, ID Hill, et al., 2013, ACG Clinical Guidelines: Diagnosis and Management of
503 Celiac Disease, *Am J Gastroenterol*, 108:656–676.