Gluten in Drug Products and Associated Labeling Recommendations Guidance for Industry

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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

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> 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)

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Gluten in Drug Products and Associated Labeling Recommendations Guidance for Industry¹

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15 I. INTRODUCTION16

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,

that individual may be harmed through uncertainty and lack of information.

24

Celiac disease (also known as celiac sprue) is an immune-based reaction to dietary gluten that
 primarily affects the small intestine in susceptible individuals; unmanaged celiac disease can lead
 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

- 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,

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:

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.

42	٠	Orally	y ingested drug products. ²		
43					
44	•	Topic	al 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 th	e oral cavity).		
48					
49	In this	guidar	nce, <i>oral drug product</i> 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	8				
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.	lee ma	y be of interest to puterns with other conditions that are abated with a graten nee		
56	ulet.				
50 57	This guidance does not apply to food (including dietary supplements) or products regulated				
58			netics. ⁴ In addition, this guidance does not discuss labeling recommendations		
59			eat hypersensitivity.		
60	regard	ing wi	eat hypersensitivity.		
61	In con	oral El	DA's guidance documents do not establish legally enforceable responsibilities.		
62	0		ances describe the Agency's current thinking on a topic and should be viewed only		
62 63					
			dations, unless specific regulatory or statutory requirements are cited. The use of		
64			uld in Agency guidances means that something is suggested or recommended, but		
65	not rec	quired.			
66	TT	DIGO			
67	II.	DISC	USSION		
68					
69 70		A.	Possible Sources and Amounts of Gluten in Oral Drug Products		
70	XX 71				
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.

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- 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. 93 94 2. Wheat Gluten as an Impurity in Ingredients Derived From Wheat 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
- the amounts of gluten that could be found in food products labeled gluten-free under FDA's regulations (21 CFR 101.91). We present this analysis because (1) it has informed our thinking about regulatory options associated with gluten in oral drug products, (2) we would like drug 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

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

- 114 wheat starch.
- 115 116

117

a. Wheat flour

We are aware that some manufacturers have reported the direct addition of wheat flour to oral 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.

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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 been added as an ingredient would depend on how much wheat flour is used. Because use of 126 127 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. 131 132 b. Wheat starch 133 134 As with wheat gluten and wheat flour, we believe wheat starch is added to oral drug products as 135 an ingredient only very rarely. Other sources of starch (e.g., corn, potato) are more commonly 136 used in pharmaceutical products. As discussed in section II.B of this guidance, any oral drug 137 product that contains wheat starch as an intentionally added ingredient should be labeled to 138 indicate its presence. 139 140 A monograph for wheat starch in the National Formulary (NF) includes a 0.3 percent limit on total protein but does not include a limit on gluten content.⁷ The gluten content will be some 141 142 proportion of the total protein content. Based on published information, we understand the gluten 143 content of wheat starch suitable for use in drug products is variable but is typically in the range 144 of 100 to 500 mg/kg (see, e.g., Kasarda, Dupont, et al. 2008). Based on our review of drug 145 formulation information, we expect wheat starch—in the rare cases in which it is used in oral 146 drug products—to contribute less than 0.1 mg gluten to a unit dose of an oral drug product. 147 148 c. Ingredients derived from starch 149 150 Starch is used as a starting material for manufacturing various ingredients added to oral drug 151 products. The starch used for this purpose is often corn or potato starch, not wheat starch. Nevertheless, we recognize that very small amounts of wheat gluten may be present in starch-152 153 derived ingredients if wheat starch is used as the starting material. 154 Ingredients in this category-potentially derived from wheat starch-include modified starch, 155 156 pregelatinized starch, and sodium starch glycolate. This category also includes starch 157 hydrolysates (e.g., maltodextrin, dextrates, dextrose, maltose, and sugar alcohols such as sorbitol, 158 xylitol, maltitol, and mannitol) and hydrogenated starch hydrolysates (mixtures of sugar 159 alcohols). 160 161 As with wheat starch, compendial monographs for these ingredients do not include specific 162 limits on gluten content. We have found published reports regarding the gluten content for only a 163 limited number of ingredients derived from wheat starch. In the absence of such specific

164 information, we have made the conservative assumption that wheat-derived modified starches

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 <u>http://www.starch.dk/isi/starch/tm33wheat.asp</u>, accessed August 2017.

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

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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 might be found in wheat starch: 100–500 mg/kg. Based on published literature, we believe that 167 starch hydrolysates and hydrogenated starch hydrolysates derived from wheat may contain up to 168 169 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. 172 173 d. Ingredients produced through fermentation 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 In some cases, an ingredient such as ethanol⁸ may be purified through distillation. It is unlikely 183 184 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 As with all of our estimates presented above, there is some uncertainty surrounding the amount 194 195 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. 200 201 Wheat germ oil e. 202 We are aware that wheat germ oil⁹ may be used as an ingredient in certain products applied 203 204 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.

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

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223 224

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 prevent contamination of a drug being processed,¹⁰ and a violation of the CGMP regulations can 220 result in an enforcement action. FDA would consider taking action if an oral drug product were 221 222 found to contain significant amounts of gluten as a contaminant.

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 ingredient to a unit dose of an oral drug product (unless that ingredient is wheat gluten itself or 228 wheat flour) is expected to be less than 0.5 mg, as a high estimate.¹¹ As discussed in section II.A 229 230 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 101.91 (if all of the criteria of that regulation are satisfied).¹² Moreover, the amount of gluten 235 236 estimated to be potentially present in a unit dose of an oral drug product (less than 0.5 mg) is significantly less than the range at which gluten is estimated to be present in a gluten-free diet (5 237 238 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.

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that they might choose to avoid using oral drug products labeled as containing *wheat gluten* or

wheat flour as an ingredient in the absence of more information about the product's actual glutencontent.

244

245 We have also considered the potential impact on those individuals with celiac disease who take

multiple oral medications each day. Considering that inactive ingredients are typically derivedfrom 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

- adhering to a gluten-free diet may ingest from food.
- 251

Some celiac patients are more sensitive to gluten than others and do not respond well to a glutenfree diet.¹⁴ Patients who are more sensitive to gluten will likely seek to eliminate all sources of

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

added wheat starch in addition to those containing added wheat gluten or wheat flour.

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-

derived ingredients in their oral drug products. We encourage drug manufacturers to haveaccurate information on the sources of their ingredients available so they can respond to

261 questions from the public and health care providers.

262 263

264

1. Ingredient Labeling: Current Regulations and Practice

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

- 267
- 268 269

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

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

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).

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276	b. Prescription oral drug products			
277				
278	Although not currently mandated by FDA's regulations, manufacturers of prescription oral drug			
279	products generally provide a list of inactive ingredients in the DESCRIPTION section of the			
280	prescribing information. ¹⁸			
281	Drugs that are light and high given by stading they are required up day a high given by			
282 283	Drugs that are licensed biological products (i.e., they are regulated under a biologics license			
285 284	application (BLA)) are subject to additional labeling requirements described in 21 CFR part 610,			
284 285	subpart G. In particular, 21 CFR 610.61 requires identification of certain types of inactive ingredients, including preservatives, "known sensitizing substances," and "inactive ingredients			
285 286	when a safety factor."			
280 287	when a safety factor.			
288	We interpret the requirement that inactive ingredients be identified in the labeling of biological			
289	products "when a safety factor" as meaning that <i>wheat gluten</i> and <i>wheat flour</i> must be identified			
290	by those names if they are present in orally administered biological products.			
291				
292	2. Established Names			
293				
294	According to section 502(e)(3) of the Federal Food, Drug, and Cosmetic Act (FD&C Act), the			
295	term <i>established name</i> means (a) the official name designated pursuant to section 508; ¹⁹ (b) if			
296	there is no such name, the title of a monograph for the ingredient in an official compendium; ²⁰ or			
297	(c) the "common or usual name" if neither (a) nor (b) applies.			
298				
299	Consistent with this provision, the established name used in labeling for any wheat-derived			
300	ingredient that is the subject of a monograph in an official compendium must be the monograph			
301	title, where there is no official name designated pursuant to section 508. For example, <i>wheat</i>			
302	<i>starch</i> (not <i>starch</i>) is the established name by which wheat starch must be identified in drug			
303 304	labeling. However, the more highly processed ingredients discussed in section II.A of this			
304 305	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			
305	titles of their compendial monographs do not include this designation.			
300	thes of their compendial monographs do not menude this designation.			
308	If an ingredient is not recognized in an official compendium and does not have an applicable			
309	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.

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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

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- 313314

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

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

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

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327 III. RECOMMENDATIONS

328

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

- 334 335
- A. Voluntary Statements Regarding Gluten
- 336 337 338
- 1. Statements on Labels or in Required Labeling

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

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

344 345

342 343

We would interpret such a statement to mean that the manufacturer knows that no ingredient in
the product was derived directly or indirectly from wheat, barley, or rye or their crossbred
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.

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through a fermentation process if the fermentation medium is not known to be free of ingredients
 derived from wheat, barley, or rye or their crossbred hybrids. Substantiation for such a statement
 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 finished drug products or in drug ingredients at the low levels at which it would generally be 361 362 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.

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2. Supporting Information

Firms are responsible for the truthfulness of their gluten-related labeling statements and for ensuring that the information related to their oral drug products supports the use of such statements.²⁴ Firms should also have supporting information available, including information from ingredient suppliers about their processes and raw materials. Indeed, CGMP regulations 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

ingredient potentially derived from wheat, barley, rye, or their crossbred hybrids or produced

through fermentation, these grains are not used in the production of the ingredient.

378

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

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).

387	В.	Submission and Adoption				
388		-				
389	1.	Oral Drug Products With New or Pending Applications				
390						
391	An applican	t 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, A	NDA, 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 su	bmission requirements associated with the formulation changes. ³⁰				
404						
405	An NDA, A	NDA, 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		ny 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, A	NDA, or BLA holder wishing to use an alternative statement must submit the				
411	1 1	tement 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 la	abeling 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 g	luten—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 <u>https://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/default.htm</u>.

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).

420 421 422 423 424 425 426 427 428 420	are satisfied and the recommended labeling statement is properly substantiated or the alternative statement is approved. Conversely, if the RLD for a product described in an ANDA includes either the recommended labeling statement or an alternative statement addressing gluten, the product described in the ANDA is not required to include such a statement in its labeling to comply with the same labeling requirement that applies to ANDAs. Although the labeling of a product described in an ANDA and its RLD must generally be the same, an exception is made for differences attributable to the products being produced or distributed by different manufacturers. Such differences may include differences in labeling to reflect permissible differences in the formulation of the drug products (such as permissible differences in inactive ingradiants) and labeling requirement to comply with aurrent EDA labeling and labeling or a statement of the drug products (such as permissible differences in inactive ingradiants) and labeling requirement to approach to a statement be addressible differences in the formulation of the drug products (such as permissible differences in inactive ingradiants) and labeling requirement to approach to a statement approach.			
429	ingredients) and labeling revisions made to comply with current FDA labeling guidelines or $(1000 \text{ GeV})^{-1}$			
430 431	other guidance. See section 505(j)(2)(A)(v) of the FD&C Act and 21 CFR 314.94(a)(8)(iv).			
431	3. Oral Drug Products With Approved Applications That Already Include a			
433	Statement About Gluten Other Than the Recommended Labeling Statement			
434	Sidiemeni Abbai Gidien Other Than the Recommended Labering Sidiemeni			
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 $\frac{34}{34}$			
459	its use. ³⁴			
460				

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)).

Draft — Not for Implementation

461 C. Placement of a Voluntary Gluten Labeling Statement

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1. Prescription Oral Drug Products

465 When used, a voluntary gluten statement should be included in the DESCRIPTION section of the prescribing information. Specifically, it should appear at the end of the inactive ingredients 466 467 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 appear on the principal display panel, to avoid interference with the required or recommended 472 information that appears on labels and labeling.³⁵ 473

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- 475 476

2. Nonprescription Oral Drug Products

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

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

- 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.