



DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 172

[Docket No. FDA-2021-F-0366]

Food Additives Permitted for Direct Addition to Food for Human Consumption; Vitamin D₃ in Yogurt and Other Cultured Dairy Products Fermented with *Lactobacillus delbrueckii*, subspecies *bulgaricus*, and *Streptococcus thermophilus*

AGENCY: Food and Drug Administration, Health and Human Services (HHS).

ACTION: Final amendment; order.

SUMMARY: The Food and Drug Administration (FDA or we) is amending the food additive regulations to provide for the safe use of vitamin D₃ as a nutrient supplement in yogurt and other cultured dairy products fermented with *Lactobacillus delbrueckii*, subspecies *bulgaricus* (*L. delbrueckii*, subsp. *bulgaricus*), and *Streptococcus thermophilus* (*S. thermophilus*) at a level higher than is currently permitted. We are taking this action in response to a food additive petition filed by General Mills, Inc. (General Mills or petitioner). We are also updating the reference for the vitamin D₃ specifications.

DATES: This order is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]. The incorporation by reference of certain material listed in the order is approved by the Director of the Federal Register as of [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Submit either electronic or written objections and requests for a hearing by 11:59 p.m. Eastern Time on [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. See section VIII for further information on the filing of objections.

ADDRESSES: You may submit objections and requests for a hearing as follows. Please note that late, untimely filed objections will not be considered. The <https://www.regulations.gov>

electronic filing system will accept objections until 11:59 p.m. Eastern Time at the end of [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Objections received by mail/hand delivery/courier (for written/paper submissions) will be considered timely if they are received on or before that date.

Electronic Submissions

Submit electronic objections in the following way:

- Federal eRulemaking Portal: <https://www.regulations.gov>. Follow the instructions for submitting comments. Objections submitted electronically, including attachments, to <https://www.regulations.gov> will be posted to the docket unchanged. Because your objection will be made public, you are solely responsible for ensuring that your objection does not include any confidential information that you or a third party may not wish to be posted, such as medical information, your or anyone else's Social Security number, or confidential business information, such as a manufacturing process. Please note that if you include your name, contact information, or other information that identifies you in the body of your objection, that information will be posted on <https://www.regulations.gov>.
- If you want to submit an objection with confidential information that you do not wish to be made available to the public, submit the objection as a written/paper submission and in the manner detailed (see "Written/Paper Submissions" and "Instructions").

Written/Paper Submissions

Submit written/paper submissions as follows:

- Mail/Hand delivery/Courier (for written/paper submissions): Dockets Management Staff (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

- For written/paper objections submitted to the Dockets Management Staff, FDA will post your objection, as well as any attachments, except for information submitted, marked and identified, as confidential, if submitted as detailed in “Instructions.”

Instructions: All submissions received must include the Docket No. FDA-2021-F-0366 for “Food Additives Permitted for Direct Addition to Food for Human Consumption; Vitamin D₃ in Yogurt and Other Cultured Dairy Products Fermented with *Lactobacillus delbrueckii*, subspecies *bulgaricus*, and *Streptococcus thermophilus*.” Received objections, those filed in a timely manner (see ADDRESSES), will be placed in the docket and, except for those submitted as “Confidential Submissions,” publicly viewable at <https://www.regulations.gov> or at the Dockets Management Staff between 9 a.m. and 4 p.m., Monday through Friday, 240-402-7500.

- Confidential Submissions--To submit an objection with confidential information that you do not wish to be made publicly available, submit your objections only as a written/paper submission. You should submit two copies total. One copy will include the information you claim to be confidential with a heading or cover note that states “THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION.” We will review this copy, including the claimed confidential information, in our consideration of comments. The second copy, which will have the claimed confidential information redacted/blacked out, will be available for public viewing and posted on <https://www.regulations.gov>. Submit both copies to the Dockets Management Staff. If you do not wish your name and contact information to be made publicly available, you can provide this information on the cover sheet and not in the body of your comments and you must identify this information as “confidential.” Any information marked as “confidential” will not be disclosed except in accordance with 21 CFR 10.20 and other applicable disclosure law. For more information about FDA’s posting of comments to public dockets, see 80 FR 56469, September 18, 2015, or access the information at: <https://www.govinfo.gov/content/pkg/FR-2015-09-18/pdf/2015-23389.pdf>.

Docket: For access to the docket to read background documents or the electronic and written/paper comments received, go to <https://www.regulations.gov> and insert the docket number, found in brackets in the heading of this document, into the “Search” box and follow the prompts and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852; phone: 240-402-7500.

FOR FURTHER INFORMATION CONTACT: Marissa Santos, Office of Pre-market Additive Safety, Human Foods Program, Food and Drug Administration, 5001 Campus Dr., College Park, MD 20740-3835; phone: 240-402-8160; or Alexandra Beliveau, Office of Policy, Regulations, and Information, Human Foods Program, Food and Drug Administration, 5001 Campus Dr., College Park, MD 20740; phone: 240-402-2378.

SUPPLEMENTARY INFORMATION:

I. Background

In the *Federal Register* of April 23, 2021 (86 FR 21675), we announced that we filed a food additive petition (FAP 1A4827) submitted on behalf of General Mills by Exponent, 1150 Connecticut Ave. NW, Suite 1100, Washington, DC 20036. The petition proposed that FDA amend the food additive regulations in 21 CFR 172.380 to provide for the safe use of vitamin D₃ as a nutrient supplement at levels up to 178 international units (IU) vitamin D₃ per 100 grams (g) in “standardized yogurt and non-standardized milk-based yogurt products.”

We consider the foods subject to this order to be yogurt and other cultured dairy products fermented with *L. delbrueckii*, subsp. *bulgaricus*, and *S. thermophilus*. While the petition refers to “standardized yogurt and non-standardized milk-based yogurt products,” all yogurt is standardized. Yogurt is standardized under 21 CFR 131.200 and lower fat yogurt (i.e., reduced fat yogurt, low fat yogurt, and nonfat yogurt) is standardized under 21 CFR 130.10. Accordingly, we understand the petitioned uses to be yogurt and other cultured dairy products fermented with *L. delbrueckii*, subsp. *bulgaricus*, and *S. thermophilus*.

We note that, after the petition was submitted, FDA amended the standard of identity for yogurt several times (see 88 FR 22907, April 14, 2023; 87 FR 76559, December 15, 2022; 87 FR 16394, March 23, 2022; and 86 FR 31117, June 11, 2021). Of most relevance, in December 2022, FDA reduced the minimum level of vitamin D fortification that, if added, would be required for yogurt and lower fat yogurt from 25 percent Daily Value (DV) to 10 percent DV, explaining that a minimum of 25 percent DV (equal to 5 micrograms (μg) per reference amount customarily consumed (RACC)) conflicts with the level authorized by our generally recognized as safe (GRAS) regulation for vitamin D, which sets the limit for vitamin D in milk products at 89 IU/100 g of food (21 CFR 184.1950(c)(1)), equivalent to 3.8 μg per RACC (see 87 FR 76559 at 76562). In reducing the minimum level of vitamin D fortification to 10 percent DV, we reduced the vitamin D per RACC to 2 μg . Consequently, until the issuance of this order, optional vitamin D fortification in yogurt and lower fat yogurt has been permitted in the range of 2 μg to 3.8 μg per RACC. This order revises the upper limit. The limit of 178 IU/100 g proposed in the petition is equivalent to 7.6 μg per RACC. (One IU of vitamin D is equivalent to 0.025 μg of vitamin D.)

FDA is also updating the reference for specifications for vitamin D₃ established in § 172.380(b) by incorporating by reference the most recent monograph for vitamin D₃ in the 14th edition of the Food Chemicals Codex, effective June 1, 2024 (FCC 14 vitamin D₃ monograph). The current food additive regulation for the use of vitamin D₃ (§ 172.380) indicates that the additive must meet the specifications in the 13th edition of the FCC (FCC 13). Since we received the petition, the FCC has been updated to the 14th edition (FCC 14). The specifications for vitamin D₃ from FCC 13 are identical to those in FCC 14. Therefore, we are amending § 172.380(b) by adopting, and incorporating by reference, the FCC 14 vitamin D₃ monograph. In addition, the petitioner subsequently stated that the specifications provided in the petition for vitamin D₃ comply with FCC 14 (Ref. 1).

Vitamin D is essential for human health. Vitamin D comprises a group of fat-soluble seco-sterols and occurs in many forms. The two major physiologically relevant forms are vitamin D₂ and vitamin D₃. Vitamin D without a subscript represents vitamin D₂, vitamin D₃, or both. The major function of vitamin D is the maintenance of blood serum concentrations of calcium and phosphorus by enhancing the absorption of these minerals in the small intestine. Vitamin D deficiency can lead to abnormalities in calcium and bone metabolism, such as rickets in children or osteomalacia in adults. At high levels in the diet, vitamin D may be toxic. Excessive intake of vitamin D elevates blood plasma calcium levels (hypercalcemia) by increased intestinal absorption or mobilization from the bone that can lead to vascular and tissue calcification, with subsequent damage to the heart, blood vessels, and kidneys (Refs. 2 through 4).

To ensure that vitamin D is not added to the U.S. food supply at levels that could raise safety concerns, FDA affirmed vitamin D as GRAS with specific limitations as listed in § 184.1950. Under § 184.1(b)(2), an ingredient affirmed as GRAS with specific limitations may be used in food only within such limitations, including the category of food, functional use of the ingredient, and level of use. Any addition of vitamin D to food beyond those limitations set out in § 184.1950 requires a food additive regulation. Vitamin D is affirmed as GRAS for use in certain foods as a nutrient supplement (as defined under 21 CFR 170.3(o)(20)) under § 184.1950(c)(1), in accordance with § 184.1(b)(2), as the sole source of added vitamin D only within the following specific limitations:

Category of food	Maximum levels in food (as served) (IU/100 g)
Breakfast cereals	350
Grain products and pasta	90
Milk	42
Milk products	89

Vitamin D is also affirmed as GRAS under § 184.1950(c)(2) and (3) for use in infant formula and margarine. Vitamin D₂ is an approved food additive under § 172.379 for use as a nutrient supplement in edible plant-based beverages intended as milk alternatives, edible plant-based yogurt alternatives, soy beverage products, soy-based butter substitute spreads, and soy-based cheese substitutes and soy-based cheese substitute products. Vitamin D₃ is an approved food additive under § 172.380 for use for use as a nutrient supplement in certain calcium-fortified 100 percent fruit juices and fruit juice drinks; meal replacement and other-type bars that are represented for special dietary use in reducing or maintaining body weight; soy-protein based meal replacement beverages that are represented for special dietary use in reducing or maintaining body weight; certain cheese and cheese products; certain meal replacement beverages that are not intended for special dietary use in reducing or maintaining body weight; foods represented for use as a sole source of nutrition for enteral feeding; milk that contains more than 42 IU vitamin D per 100 g and that meets the requirements for foods named by use of a nutrient content claim and a standardized term in accordance with § 130.10; breakfast cereals; and grain-based bars. Vitamin D₂ bakers yeast is an approved food additive under § 172.381 for use as a source of vitamin D₂ and as a leavening agent in yeast-leavened baked goods and baking mixes and yeast-leavened baked snack foods. Vitamin D₂ mushroom powder is an approved food additive under § 172.382 for use as a source of vitamin D₂ in: (1) foods to which vitamin D₂, vitamin D₃, and vitamin D₂ bakers yeast are currently allowed to be added under §§ 184.1950, 172.379, 172.380, and 172.381, excluding cheese and cheese products, foods represented for use as a sole source of nutrition for enteral feeding, infant formula, milk and milk products, margarine, and grain-based bars; (2) fruit smoothies; (3) vegetable juices; (4) extruded vegetable snacks; (5) certain soups and soup mixes; and (6) plant protein products.

To support their petition, General Mills submitted dietary exposure estimates to vitamin D from the proposed uses of vitamin D₃, as well as all naturally occurring dietary sources of vitamin D, approved and affirmed uses of vitamin D under our food additive and GRAS

regulations, and dietary supplements. General Mills compared these dietary exposure estimates to the Tolerable Upper Intake Level (UL) for vitamin D established by the Institute of Medicine (IOM) of the National Academies (now the National Academy of Medicine). General Mills also submitted published scientific literature pertaining to clinical studies on vitamin D.

II. Evaluation of Safety

To establish with reasonable certainty that a food additive is not harmful under its intended conditions of use, we consider the projected human dietary exposure to the additive, the additive's toxicological data, and other relevant information (such as published scientific literature) available to us. We compare the dietary exposure to the additive from all food sources to an acceptable intake level established by data. The dietary exposure is determined based on the amount of the additive proposed for specific uses in foods and on data regarding the amount consumed from all food sources of the additive. We commonly use the 90th percentile dietary exposure for the consumer of a food additive as a measure of high chronic dietary exposure.

A. Acceptable Daily Intake for Vitamin D

In 2011, the Standing Committee on the Scientific Evaluation of Dietary Reference Intakes of the Food and Nutrition Board at the IOM conducted an extensive review of relevant published scientific literature to update established dietary reference intakes (DRIs) for vitamin D; these DRIs are a family of nutrient reference values that includes ULs (Ref. 5). Based on this information, the IOM revised the ULs for vitamin D and published a report on their findings (Ref. 6). In its 2011 assessment of vitamin D, the IOM established ULs for different age groups, including total consumption from food, including dietary supplements, and water:

UL IU/per person/day (p/d)	Age group
1,000	infants 0 months to 6 months of age
1,500	infants 6 months to 12 months of age
2,500	children 1-3 years of age
3,000	children 4-8 years of age
4,000	adolescents aged 9-18 years of age and adults

The IOM considers the UL as the maximum daily intake level of a nutrient that is likely to pose no health hazard risk for almost all individuals in the general population when the

nutrient is consumed over long periods of time. The UL is determined using a risk assessment approach developed specifically for nutrients. The dose-response assessment, which concludes with an estimate of the UL, is built upon three toxicological concepts commonly used in assessing the risk of exposures to chemical substances: no-observed-adverse-effect level, lowest-observed-effect level, and application of an uncertainty factor. We considered the ULs established by the IOM relative to the cumulative dietary exposure estimates as the primary basis for assessing the safety of the petitioned uses of vitamin D₃. We also reviewed published scientific literature on the safety of vitamin D submitted in the petition, as well as other relevant published studies available to FDA.

B. Dietary Exposure Estimate for Vitamin D

General Mills presented a dietary exposure estimate to vitamin D from the proposed uses, as well as a cumulative dietary exposure estimate that included existing sources of vitamin D. General Mills also provided an adjusted cumulative dietary exposure estimate that included vitamin D₂ in mushroom powder. In this scenario, General Mills added the per capita dietary exposure to vitamin D₂ in mushroom powder to their mean and 90th percentile cumulative dietary exposure to vitamin D from existing sources and the proposed uses of vitamin D₃. We note that this is not an appropriate method to estimate the cumulative dietary exposure, particularly for those individuals at the 90th percentile. Furthermore, General Mills' estimated cumulative dietary exposure did not include the contribution to dietary exposure for vitamin D from the most recent food additive petition approval, FAP 9A4823, for the use of vitamin D₃ as a nutrient supplement in breakfast cereals and grain-based bars. Additionally, since the submission of General Mills' petition, more recent National Health and Nutrition Examination Survey (NHANES) food consumption data have become available. Therefore, FDA conducted a dietary exposure estimate to vitamin D₃ from the proposed use in yogurt and other cultured dairy products fermented with *L. delbrueckii*, subsp. *bulgaricus*, and *S. thermophilus*, as well as a cumulative dietary exposure estimate to vitamin D from all existing sources of vitamin D (i.e.,

naturally-occurring, approved and affirmed GRAS sources of vitamin D, and dietary supplements), including the approved use of vitamin D₂ in mushroom powder and the approved uses of vitamin D₃ in breakfast cereals and grain-based bars, and the proposed uses using food consumption data from the combined 2015–2018 NHANES (Ref. 1). Furthermore, FDA also incorporated the estimated dietary exposure to 25-hydroxyvitamin D into the cumulative estimate to account for discrepancies seen between dietary intake and blood serum levels of vitamin D (Ref. 1).

Based on FDA’s conservative estimate of cumulative dietary exposure, the proposed use of vitamin D₃ in yogurt and other cultured dairy products fermented with *L. delbrueckii*, subsp. *bulgaricus*, and *S. thermophilus* will not be expected to significantly increase the dietary exposure to vitamin D in all subpopulations. However, we determined that based on data obtained from combined NHANES surveys for the years 2011 to 2018, there was an increase in dietary exposure to vitamin D in adults 71 years and older due to an increase in the consumption of dietary supplements containing vitamin D by this subpopulation (Ref. 1). Yet, there still are vitamin D deficiency concerns for the general population, including those 71 years of age and older (Refs. 7 and 8). We recognized that our traditional approach when estimating the dietary exposure could limit additional fortification of foods with vitamin D if based on the vitamin D dietary supplement consumption patterns of adults aged 71 years and older. Therefore, FDA refined the dietary exposure estimate to vitamin D for this subpopulation; it combined our conservative estimate of cumulative dietary exposure to vitamin D from conventional foods with the assumption that all users in the subpopulation of adults 71 years and older will consume a daily dietary supplement containing vitamin D at the Recommended Dietary Allowance (RDA) (Ref. 1). We believe this approach still provides a conservative estimate of cumulative dietary exposure for this subpopulation because it assumes all individuals in the subpopulation consume a supplement containing vitamin D at the RDA, when, based on data from the combined 2015-

2018 NHANES survey, approximately 40 percent of the individuals surveyed in this subpopulation did not report taking a supplement containing vitamin D.

For the overall U.S. population 1 year of age and older, we estimated the cumulative dietary exposure at the 90th percentile from all food sources of vitamin D, including the proposed uses and background sources, to be 3,170 IU/p/d. We estimated the 90th percentile cumulative dietary exposure from all food sources of vitamin D to be 944 IU/p/d for infants 0 to 6 months, 1230 IU/p/d for infants 6 to 12 months, 1720 IU/p/d for children 1 to 3 years, and 1910 IU/p/d for children 4-8 years, and our estimates for adolescents, teenagers, and adults less than 71 years ranged from 1960 IU/p/d to 3930 IU/p/d. We estimated the 90th percentile cumulative dietary exposure from all food sources of vitamin D, including the proposed uses and background sources, for adults 71 years and older to be 2,732 IU/p/d using our refined approach. In summary, the estimated cumulative dietary exposure to vitamin D₃ at the 90th percentile from the petitioned uses and background sources is below the IOM ULs for all population groups for which ULs were established.

C. Safety of the Petitioned Use of Vitamin D₃ in Yogurt and Other Cultured Dairy Products Fermented with L. delbrueckii, subsp. bulgaricus, and S. thermophilus

We reviewed and evaluated the information submitted by General Mills regarding the safety of the dietary exposure to vitamin D₃ from the proposed uses. General Mills submitted reports of scientific studies published after the 2011 IOM report and concluded that these publications support a conclusion that the proposed uses of vitamin D₃ are safe.

We reviewed the published reports of scientific studies on vitamin D submitted by General Mills, as well as other relevant published studies available to us since our previous evaluations of food additive petitions for fortifying a variety of foods with vitamin D, which resulted in FDA revising related regulations several times (88 FR 745, January 5, 2023; 85 FR 41916, July 13, 2020; 81 FR 46578, July 18, 2016; 77 FR 52228, August 29, 2012; 74 FR 11019, March 16, 2009; 70 FR 69435, November 16, 2005; 70 FR 37255, June 29, 2005; 70 FR 36021,

June 22, 2005; 68 FR 9000, February 27, 2003). These studies did not raise any new safety concerns regarding the current or proposed uses of vitamin D. The most recent food additive petition concerning vitamin D resulted in our amendment of the food additive regulations in § 172.380 to increase the use level of vitamin D₃ in breakfast cereals to 560 IU/100 g and expand the use to include vitamin D₃ at levels up to 400 IU/100 g in grain-based bars (88 FR 745, January 5, 2023). The earlier food additive petitions also resulted in amendments of the food additive regulations to allow for the safe use of vitamin D as a nutrient supplement in certain foods.

We consider the ULs established by the IOM relative to the dietary exposure estimates as the primary basis for assessing the safety of the petitioned uses of vitamin D₃. Using our traditional approach, FDA's cumulative dietary exposure estimate to vitamin D from all food sources at the 90th percentile for the U.S. population was below the IOM ULs for all subpopulation groups except for adults 71 years of age and older. As noted previously, FDA refined its approach to reflect the current recommended daily intake levels for vitamin D for adults 71 years of age and older, which resulted in a 90th percentile dietary exposure to vitamin D of 2,732 IU/p/d, which is below the IOM UL for this subpopulation. Because the estimated dietary exposure at the 90th percentile to vitamin D from all current and proposed food sources for each population group is less than the corresponding IOM UL for that population group, we conclude that dietary exposure to vitamin D₃ from the proposed use as a nutrient supplement in yogurt and other cultured dairy products fermented with *L. delbrueckii*, subsp. *bulgaricus*, and *S. thermophilus* is safe (Ref. 4).

III. Conclusion

Based on the relevant data available to FDA and information in the petition, we conclude that there is reasonable certainty that no harm will result from the use of vitamin D₃ as a nutrient supplement in yogurt and other cultured dairy products fermented with *L. delbrueckii*, subsp. *bulgaricus*, and *S. thermophilus* at levels up to 178 IU vitamin D₃ per 100 g. Additionally, we

are amending § 172.380(b) by adopting, and incorporating by reference, the FCC 14 vitamin D₃ monograph.

IV. Incorporation by Reference

A. FCC 14 vitamin D₃ monograph

FDA is incorporating by reference the monograph for vitamin D₃ from the Food Chemicals Codex, 14th edition, effective June 1, 2024, which was approved by the Office of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The FCC 14 vitamin D₃ monograph sets forth a standard for purity and identity for vitamin D₃. The monograph provides specifications and analytical methodologies to identify the substance and establish acceptable purity criteria.

You may purchase a copy of the material from the U.S. Pharmacopeial Convention, 12601 Twinbrook Pkwy., Rockville, MD 20852; phone: 1-800-227-8772; website: <https://www.usp.org/>. You may inspect a copy at Dockets Management Staff (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852; phone: 240-402-7500, between 9 a.m. and 4 p.m., Monday through Friday.

B. Context on FCC Editions

The current food additive regulation for the use of vitamin D₃ (§ 172.380) indicates that the additive must meet the specifications in the FCC 13. The petitioner indicated that the vitamin D₃ petitioned in FAP 1A4827 complies with the specifications in the monograph for vitamin D₃ in FCC 12. Since we received the petition, the FCC has been updated to the 14th edition (FCC 14). The specifications for vitamin D₃ in FCC 14 are identical to those in FCC 12 and FCC 13. In addition, the petitioner subsequently stated that the specifications provided in the petition for vitamin D₃ comply with FCC 14 (Ref. 1). Therefore, we are amending § 172.380(b) by adopting, and incorporating by reference, the specifications for vitamin D₃ in FCC 14 in place of FCC 13.

V. Public Disclosure

In accordance with 21 CFR 171.1(h), the petition and the documents that we considered and relied upon in reaching our decision to approve the petition will be made available for public disclosure (see FOR FURTHER INFORMATION CONTACT). As provided in § 171.1(h), we will delete from the documents any materials that are not available for public disclosure.

VI. Analysis of Environmental Impact

As stated in the April 23, 2021, *Federal Register* notification of petition for FAP 1A4827 (86 FR 21675), the petitioners claimed a categorical exclusion from preparing an environmental assessment or environmental impact statement under 21 CFR 25.32(k) because vitamin D₃ is intended to remain in food through ingestion by consumers and is not intended to replace macronutrients in food. We further stated that if FDA determines a categorical exclusion applies, neither an environmental assessment nor an environmental impact statement is required. We have not received any new information or comments regarding this claim of categorical exclusion. We have considered the petitioner's claim of categorical exclusion and have determined that this action is categorically excluded under § 25.32(k) (Ref. 9). Therefore, neither an environmental assessment nor an environmental impact statement is required.

VII. Paperwork Reduction Act of 1995

This order contains no collection of information. Therefore, clearance by the Office of Management and Budget under the Paperwork Reduction Act of 1995 is not required.

VIII. Objections

If you will be adversely affected by one or more provisions of this regulation, you may file with the Dockets Management Staff (see ADDRESSES) either electronic or written objections. You must separately number each objection, and within each numbered objection you must specify with particularity the provision(s) to which you object, and the grounds for your objection. Within each numbered objection, you must specifically state whether you are requesting a hearing on the particular provision that you specify in that numbered objection. If

you do not request a hearing for any particular objection, you waive the right to a hearing on that objection. If you request a hearing, your objection must include a detailed description and analysis of the specific factual information you intend to present in support of the objection in the event that a hearing is held. If you do not include such a description and analysis for any particular objection, you waive the right to a hearing on the objection.

Any objections received in response to the regulation may be seen in the Dockets Management Staff between 9 a.m. and 4 p.m., Monday through Friday, and will be posted to the docket at <https://www.regulations.gov>.

IX. Section 301(ll) of the Federal Food, Drug, and Cosmetic Act

Our review of this petition was limited to section 409 of the Federal Food, Drug, and Cosmetic Act (FD&C Act) (21 U.S.C. 348). This order is not a statement regarding compliance with other sections of the FD&C Act. For example, section 301(ll) of the FD&C Act (21 U.S.C. 331(ll)) prohibits the introduction or delivery for introduction into interstate commerce of any food that contains a drug approved under section 505 of the FD&C Act (21 U.S.C. 355), a biological product licensed under section 351 of the Public Health Service Act (42 U.S.C. 262), or a drug or biological product for which substantial clinical investigations have been instituted and their existence has been made public, unless one of the exemptions in section 301(ll)(1) through (4) of the FD&C Act applies. In our review of this petition, we did not consider whether section 301(ll) of the FD&C Act or any of its exemptions apply to food containing this additive. Accordingly, this order should not be construed to be a statement that a food containing this additive, if introduced or delivered for introduction into interstate commerce, would not violate section 301(ll) of the FD&C Act. Furthermore, this language is included in all food additive orders and therefore should not be construed to be a statement of the likelihood that section 301(ll) of the FD&C Act applies.

X. References

The following references marked with an asterisk (*) are on display in the Dockets Management Staff (see ADDRESSES) and are available for viewing by interested persons between 9 a.m. and 4 p.m., Monday through Friday; they are also available electronically at <https://www.regulations.gov>. References without asterisks are not on public display at <https://www.regulations.gov> because they have copyright restriction. Some may be available at the website address, if listed. References without asterisks are available for viewing only at the Dockets Management Staff. FDA has verified the website addresses, as of the date this document publishes in the *Federal Register*, but websites are subject to change over time.

*1. Memorandum from R. Shah, Chemistry Review Branch, Division of Food Ingredients, Human Foods Program (HFP), FDA, to M. Santos, Regulatory Review Branch, Division of Food Ingredients, HFP, FDA, June 16, 2025.

*2. National Institutes of Health, Office of Dietary Supplements, “Vitamin D—Fact Sheet for Consumers,” 2021. Available at <https://ods.od.nih.gov/factsheets/VitaminD-Consumer/>.

3. Pilz, S., W. Marz, K.D. Cashman, et al., “Rationale and Plan for Vitamin D Food Fortification: A Review and Guidance Paper,” *Frontiers in Endocrinology*, 0, 2018. Available at <https://www.frontiersin.org/articles/10.3389/fendo.2018.00373/full>.

*4. Memorandum from A. Khan, Toxicology Review Branch, Division of Food Ingredients, HFP, FDA, to M. Santos, Regulatory Review Branch, Division of Food Ingredients, HFP, FDA, June 17, 2025.

5. IOM Committee to Review Dietary Reference Intakes for Vitamin D and Calcium; Ross, A.C., Taylor, C.L., Yaktine, A.L., et al., editors. “Dietary Reference Intakes for Calcium and Vitamin D.” Washington (DC): National Academies Press, 2011. Available at <https://www.ncbi.nlm.nih.gov/books/NBK56070/>.

6. Taylor, C., Patterson, K., Roseland, J., et al., “Including Food 25-Hydroxyvitamin D in Intake Estimates May Reduce the Discrepancy between Dietary and Serum Measures of

Vitamin D Status.” *Journal of Nutrition*, 144: 654-659, 2014. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3985821/pdf/nut144654.pdf>.

7. Parva, N.R., Tadepalli, S.T., Singh, P., et al. “Prevalence of Vitamin D Deficiency and Associated Risk Factors in the US Population (2011-2012).” *Cureus*, June 5, 2018;10(6): e2741. Available at <https://doi.org/10.7759/cureus.2741>.

8. Corpas, E., Vinales, K., Correa, R., et al. “Vitamin D and Calcium Deficiency in the Elderly.” In *Endocrinology of Aging: Clinical Aspects in Diagrams and Images*, 103-130, 2021. Available at <https://doi.org/10.1016/B978-0-12-819667-0.00004-4>.

*9. Memorandum from B. Ott, Environmental Review Team, Office of Pre-Market Additive Safety, HFP, FDA, to M. Santos, Regulatory Review Branch, Division of Food Ingredients, HFP, FDA, July 10, 2025.

List of Subjects in 21 CFR Part 172

Food additives, Incorporation by reference, Reporting and recordkeeping requirements.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs, 21 CFR part 172 is amended as follows:

PART 172--FOOD ADDITIVES PERMITTED FOR DIRECT ADDITION TO FOOD FOR HUMAN CONSUMPTION

1. The authority citation for part 172 continues to read as follows:

Authority: 21 U.S.C. 321, 341, 342, 348, 371, 379e.

2. Amend § 172.380 by revising paragraph (b) and adding paragraph (c)(11) to read as follows:

§ 172.380 Vitamin D₃.

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(b) Vitamin D₃ meets the specifications of Vitamin D₃, Food Chemicals Codex, 14th edition, effective June 1, 2024, which is incorporated by reference into this section. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. This incorporation by reference (IBR) material is available for inspection at the Food and Drug Administration (FDA) and at the National Archives and Records Administration (NARA). Contact FDA at: the Dockets Management Staff (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852, between 9 a.m. and 4 p.m., Monday through Friday; phone: 240-402-7500; email: IBR_Material_Inquiries@fda.hhs.gov. For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov. This material may be obtained from the U.S. Pharmacopeial Convention, 12601 Twinbrook Pkwy., Rockville, MD 20852; phone 800-822-8772; email fcc@usp.org; website: <https://www.usp.org>.

(c) * * *

(11) At levels not to exceed 178 IU per 100 g in yogurt under § 131.200 of this chapter, and lower fat yogurt under § 130.10 of this chapter, and other cultured dairy products fermented with *Lactobacillus delbrueckii*, subsp. *bulgaricus*, and *Streptococcus thermophilus*.

Grace R. Graham,

Deputy Commissioner for Policy, Legislation, and International Affairs.

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