

Is your product an “acidified food”?

Shelf-stable low-acid and acidified canned foods produced in California must meet both federal and state regulations (see page 3 of this document). The intent of this worksheet is to provide a first step to determine what type of product you are making and what regulations apply.

Answer the following questions to determine if your product falls under the acidified foods regulation:

1. Will your product be distributed and sold at room temperature?

NO	_____	Refrigerated or frozen foods do not fall under the acidified foods regulation regardless of product pH or water activity. 21 CFR 117 and state regulations apply to these products ^{1,2} .
YES	_____	Proceed to Question 2

2. Does your product have a water activity greater than 0.85?

NO	_____	A food with a water activity of 0.85 or less does not fall under the acidified foods regulation regardless of product pH. 21 CFR 117 and state regulations apply to these products ^{2,3} .
YES	_____	Proceed to Question 3

3. Does your product have a pH of 4.6 or below?

NO	_____	Foods with a pH greater than 4.6 and a water activity greater than 0.85 are considered low-acid foods and are under 21 CFR 113. The heating process must be determined by a qualified person (thermal process authority), and supervisors responsible for the heat process(es) must have successfully completed the Better Process Control School ⁴ . In California you must submit a “Request for Official Sterilization Process” form for review. You will receive an official process letter from the State of California, which can be used to file this product and process with FDA.
YES	_____	Your product may be an acidified food and may need a validated process. The product and process need to be filed with FDA per 21 CFR 114. Some foods are exempt from this regulation (see Table 1). The container closure and processing operations must be under supervision of someone who has successfully completed the Better Process Control School or Acidified Foods Manufacturing School ⁴ .

¹ Temperature control must be maintained throughout production, storage, shipping, and sale. Labeling requirements also apply.

² If product is made in California, a Processed Food Registration (PFR) is required.

³ Product water activity should be verified to assure it is <0.85.

⁴ Better Process Control Schools:

<https://ucfoodsafety.ucdavis.edu/training/better-process-control-schools>

Is your product an “acidified food”?

Table 1. Exceptions to the acidified foods regulation. Proceed with caution. If you believe your product meets one of these exemptions, and you are making it in California, you may want to submit a “Request for pH Control” form and receive an official exemption letter from the State. If your product falls under this list but includes any low acid ingredients you should submit a “Request for pH Control” form to confirm your product is exempt.

Exception	Example
Naturally acidic foods	Canned peaches
Carbonated beverages	Fruit flavored carbonated beverage
Jams or jellies or preserves (as defined by the standard of identity described in 21 CFR 150)	Strawberry jam
Dressings and condiment sauces	Tarragon vinegar
Microbially fermented foods (many traditional fermentations)	Sauerkraut

FINAL NOTES FOR FOODS PROCESSED IN CALIFORNIA:

- If you aren’t sure whether your shelf-stable product is acidified or not, you should submit a “Request for pH Control” form and receive an official letter from the State.
- If your product is an acidified food then the official process letter you receive will be for the specific formulation, processing parameters, and container size specified. ANY modifications will need to be re-evaluated by the State.
- The first evaluation of your formulation by the State is free but there is a charge for each reevaluation of a modified recipe or process. Product formulations should be submitted only when the product development phase is complete.
- If your product is meat based (2% or more meat or poultry ingredients) then different regulations (not specifically covered here) may apply.

Is your product an “acidified food”?

REGULATIONS CITED

Federal: Applicable federal regulation (under the Code of Federal Regulations [CFR]):

- 21 CFR 117 Preventive Controls for Human Food regulation – applicable to all FDA-regulated foods, including those that fall under 21 CFR 113 and 21 CFR 114
<https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-117>
- 21 CFR 113 Thermally processed low-acid foods packaged in hermetically sealed containers regulation (i.e., low-acid foods regulation)
<https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-113>
- 21 CFR 114 Acidified Foods regulation
<https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=114>
- 21 CFR 150 Subpart B - Requirements for Specific Standardized Fruit Butters, Jellies, Preserves, and Related Products (more information can be found here:
<https://ucanr.edu/sites/cottagefoods/files/201264.pdf>)
- 9 CFR 421 Thermally processed commercially sterile products
<https://www.ecfr.gov/current/title-9/chapter-III/subchapter-E/part-431>

State of California:

- In California, low-acid and acidified foods fall under Cannery Inspection Program regulations. Consult the following web page for further information on processing these food products in California and for links to the appropriate forms including the “Request for pH Control” form that need to be submitted:
<https://www.cdph.ca.gov/Programs/CEH/DFDCS/Pages/FDBPrograms/FoodSafetyProgram/CanneryInspectionProgram.aspx>
- Food labeling requirements including those for refrigerated foods:
https://www.cdph.ca.gov/Programs/CEH/DFDCS/CDPH%20Document%20Library/FDB/FoodSafetyProgram/GeneralFoodLabelingRequirements.pdf?TSPD_101_R0=087ed344cfab20002d1ce06aa039e6ad0d49f9f0a12753ca7e60964108ba94573991bfc10825248f088c5ec16c143000ed963c52449428cae004b317733214c90a10e9b129475a2ea35c2c2c1e27d7a8b32a246c18a070850cccc53b1e01c471

Other resources

The importance of food pH in commercial canning: <https://extension.okstate.edu/fact-sheets/the-importance-of-food-ph-in-commercial-canning-operations.html>

Choosing and using a pH meter: <https://extension.okstate.edu/fact-sheets/choosing-and-using-a-ph-meter-for-food-products.html>

Representative pH values of some common foods:

https://www.clemson.edu/extension/food/food2market/documents/ph_of_common_foods.pdf