



Guidelines for Safe Juicing Bottling Operations

Food service establishments serving fresh squeezed juice that are operating under Maricopa County's jurisdiction are subject to Maricopa County Environmental Health Code (MCEHC) regulations. The purpose of this document is to provide guidance on how to conduct safe retail juice bottling operations within Maricopa County.

For the purposes of this guideline and HACCP principles, "Juice" means the aqueous liquid expressed or extracted from one or more fruits or vegetables, purees of the edible portions of one or more fruits or vegetables, or any concentrates of such liquid or puree that have not been specifically processed or treated to prevent, reduce, or eliminate the presence of pathogens as stated in Code of Federal Regulations (CFR), Title 21, Part 101.17(g) CFR Title 21-Juice.

Please be advised that even when all prudent precautions are taken, there exists distinct and potentially serious health hazards associated with bottling unpasteurized juice. **Therefore, the Maricopa County Environmental Services Department (Department) strongly recommends that all bottled juice be pasteurized due to the inherent risks and documented illness outbreaks associated with unpasteurized juice.**

Jurisdiction—United States Food & Drug Administration (FDA):

Juice bottling operations that wholesale their juice to other businesses, distribute/process interstate, or make any type of health claim would then be regulated by the FDA, and not the Department. For all wholesale juicing operations, the FDA requires fresh juice to be pasteurized or go through an approved HACCP-based 5-log pathogen reduction process. Examples of approved, non-pasteurization 5-log reduction methods include ultraviolet irradiation, pulsed-light, or citrus fruit surface-sanitation treatments.

Jurisdiction—Maricopa County Environmental Services Department:

Juice bottling operations that process fresh juice for sale **directly to their customers** are considered retail food operations and would be regulated by the Department, not by the FDA. Such juice may be sold in bottles or by the glass in restaurants, juice bars, farmer's markets, or other approved permitted locations. The juice processor is required to maintain direct retail **span of control** during all retail sales, including home delivery and off-site retail sale locations.

Retail juice bottling operations may produce unpasteurized juice without a HACCP plan. However, unpasteurized juice bottled by retail juicing operations is required to meet strict labeling requirements as specified by the Food Code, which includes a consumer advisory. Since bottled juices may contain multiple types of juice, unpasteurized juice sold in approved bottles must be maintained cold at 41°F or less with a 7-calendar day expiration date for consumer safety. To consistently operate as a retail juice operation and remain under the jurisdiction of the Department, all unpasteurized bottled juice is required to be sold by the owner or employee of the permitted juicing business. In addition, the facility is required to offer direct retail sale of its bottled products at the location of production to remain under the jurisdiction of the Department.



Guidelines for Safe Juicing Bottling Operations (continued)

Plan Review and Permitting

All establishments are evaluated on a case-by-case basis after a comprehensive review of measured and observed methods, criteria, equipment, and facilities in order to determine proper permitting. All juice production areas shall meet current codes and requirements in order to obtain an operational permit(s) to operate. One or more of the following operational permit(s) may be required in order to legally conduct retail sales of juice; Eating and Drinking Permit, Food Production Permit, Retail Food Permit, and/or Mobile Food Permits.

- ◇ An Eating & Drinking Permit or Food Production permit is required to bottle unpasteurized juice for direct to consumer retail sales.
- ◇ A Retail Permit may be required if the establishment intends to conduct sales at an off-site retail space location. Span of control shall be maintained by the juice processor during retail sales.
- ◇ A Food Peddler permit is required to sell pre-bottled juice products at a farmer's market or special event.

Approved Commercial Facility

- ◇ Juicing and juice bottling shall occur in an approved permitted commercial facility.
- ◇ Facilities shall meet all current Department design, construction, plumbing and operational requirements, including a separate NSF-approved food preparation sink to rinse produce.
- ◇ Sufficient storage shall be provided for equipment, utensils, produce, and finished juice products.
- ◇ Sufficient refrigeration shall be provided for cut produce and finished juice products.
- ◇ Prepared produce shall be stored in approved containers and finished juice product shall be stored under refrigeration at 41°F or less.
- ◇ No production shall take place outside of the permitted facility (i.e., at farmer's markets or special events).
- ◇ Juice bottling shall not take place from mobile food establishments.
- ◇ The juicing facility shall maintain records for produce, raw ingredients, produce deliveries, juice production records, and juice sales.
- ◇ It is recommended that the facility implement a food safety plan and Standard Operating Procedures (SOPs) for its operations, including a sick employee policy.
- ◇ The facility shall have a current certified food service manager.



Guidelines for Safe Juicing Bottling Operations (continued)

Product Source

- ◇ Produce and ingredients shall be from an approved source that complies with law, approved distributor, or retail grocery establishment.
- ◇ Incoming produce shall be inspected and all damaged and unwholesome produce shall be not be used for production. Remember the quality of the fruit is the quality of the juice.
- ◇ Fruit that has fallen on the ground or floor shall not be used.
- ◇ Washed or clean produce shall not be placed into a box that is used to handle or transport unclean produce.

Refrigeration and pH

- ◇ All processed produce and juice products shall be stored under refrigeration at 41°F or less in NSF-approved commercial grade cooler units.
- ◇ Based on available data, acidifying to a pH below 4.2 may render the product as non-TCS (Time/Temperature Control for Food Safety) by the FDA Food Code, but may not remove the hazards.

Produce Washing/Rinsing

- ◇ All produce shall be washed in accordance with the FDA Food Code and United States Department of Agriculture (USDA) requirements.
- ◇ Any produce with blemishes or damage shall be discarded
- ◇ Dirt, stems, and leaves shall be removed. This may require multiple washes for heavily soiled produce such as fresh carrots, beets, ginger, spinach, leeks, etc.
- ◇ All root produce shall undergo a physical rinse and scrub under running water.
- ◇ Solid flesh fruits and vegetables shall be scrubbed with an approved produce brush.
- ◇ Produce shall be rinsed very well under clean cold running water to remove soil and debris in a properly plumbed NSF approved commercial grade preparation sink(s).
- ◇ The utilization of produce washes is not a valid replacement for physical scrubbing and rinsing.
- ◇ Use of a surface sanitizer or a bleach solution on non-porous produce, followed by a thorough rinse is recommended. For additional information on this process, please visit <http://umaine.edu/publications/4336e>.
- * Remember, clean good-quality produce is the first key step in preparing a safe and wholesome juice. Use of uncleaned and unacceptable produce cannot be corrected after juicing without pasteurization or other aggressive treatments.
- * Recommendations – Provide additional produce wash/preparation sinks for large volume juice production due to the increased wash/rinse needs of the operation. During the planning phase, additional space and plumbing requirements should be taken into consideration.



Guidelines for Safe Juicing Bottling Operations (continued)

Juicing Equipment

Method of juicing and equipment, including all types of centrifugal juice extractors, cold-press juicers, masticating juicers, upright masticating juicers, single gear juicers, single auger juicers, twin gear (tritulating) juicers, wheat grass juicers, citrus juicers/extractors/presses, and similar juicing equipment shall meet the following:

- ◇ The juicing device and other equipment shall be commercial grade, NSF approved, ANSI equivalent, or deemed acceptable by the Department. All equipment shall meet current Department standards and requirements. All juicers, juice presses, juicing equipment, and custom equipment shall be evaluated on-site and approved only on a case-by-case basis.
- ◇ Utensils, knives, cutting boards, containers, press plates, press bags, strainer bags, funnels, and similar articles shall meet current Department requirements.
- ◇ All food contact equipment shall be easily cleanable and stored under sanitary conditions to prevent contamination.
- ◇ Approved juice bags and strainers bags have been found to be difficult to maintain clean and sanitary. Thorough washing of the bags, including approved rinsing and sanitizing steps in an approved properly plumbed commercial grade NSF 3-compartment sinks shall be conducted per Health Code.
- * Multiple replacement bags are recommended to be kept on-site.
- * It is recommended that the approved use and installation of commercial washing machines and warewashing units should be considered in order to facilitate cleaning and sanitizing.

Juicing Equipment Sanitization

- ◇ Juicing Equipment – Shall be cleaned and sanitized using approved methods defined in the Maricopa County Environmental Health Code. All equipment and food contact surfaces shall be maintained clean to both sight and touch.
- ◇ The freezing of properly cleaned and sanitized food grade press bags or strainers between production cycles in commercial grade NSF freezers is strongly recommended to “arrest” any pathogens that may be present on the bags.
- ◇ Any equipment, press bags, and strainer bags that are in disrepair/worn shall be repaired or replaced, as needed.



Guidelines for Safe Juicing Bottling Operations (continued)

Approved Juice Bottles & Caps

- ◇ Approved, food grade plastic bottles that do not require cleaning before filling provided by the manufacturer/supplier shall be utilized.
- ◇ Clean bottles shall be stored in original enclosed cartons or containers within a sealed plastic bag in an approved location. Consider how many bottles per container to help ensure sanitary conditions for storage of unused plastic bottles.
- ◇ Yeast and mold grow well under acidic conditions, but require air (oxygen) to grow. When oxygen is removed, the contaminate bacteria and spores may grow, since the competing microorganisms are reduced. Therefore, sealed mason, screw or bail type glass jars are considered reduced oxygen packaging (ROP), and shall not be utilized, unless a variance has been first been obtained by the Department. This would also extend to those containers with an inner pressure sensitive seal/liner or heat induction seal/liner, which also prevent air transference and create a reduced oxygen environment.
- ◇ Sterile plastic bottles may be sealed with approved tamper evident continuous thread cap, ratchet cap, snap-on cap, or similar safety cap/lid. Also, the plastic lids can be secured with tamper evident shrink band or seal.
- ◇ Re-usable plastic and glass containers shall not be used.
- ◇ A “hands-free” pressure capping device is recommended. Glove usage is required.

Production & Bottling

- ◇ All working surfaces shall be sanitized.
- ◇ Bare hand contact is prohibited.
- ◇ Practice proper hand washing and glove usage. Approved gloves shall be utilized during the entire juicing process. Gloves shall be used for the peeling, slicing, cutting, and processing of produce, preparation, juicing process, and during the capping and bottling of bottled juice products.
- ◇ Refer to next section on proper labeling.



Guidelines for Safe Juicing Bottling Operations (continued)

Labeling

Fresh juice products that are sold in an open glass directly to the consumer are exempt and from the labeling requirements.

Juice bottles shall be prominently displayed and shall meet the following labeling requirements:

- ◇ Meet all Federal labeling requirement as specified in [CFR Title 21-Labeling](#), unless otherwise currently exempt.
- ◇ As specified under FDA 3-401.11 - Treating Juice, juice packaged in an establishment shall be properly labeled, if not treated to yield a 5-log reduction or the most resistant microorganism of public health significance.
- ◇ As specified in 21 CFR 101.17(g) - Food Labeling, warning notice, and safe handling statements - JUICES that have not been specifically processed to prevent, reduce, or eliminate the presence of pathogens shall have the following consumer advisory stating that the juice is not pasteurized, **“WARNING: This product has not been pasteurized and, therefore, may contain harmful bacteria that can cause serious illness in children, the elderly, and persons, with weakened immune systems.”**

Be advised, that the consumer advisory statement shall not be paraphrased or changed. It must be printed exactly as stated.

- ◇ Be labeled with a consume by date or expiration date. A production date is also recommended to be placed on the product.
- ◇ The shelf-life must be preceded by a statement that the juice must be “Use or Discarded by.”
 - ◇ Juice shall have an expiration date of 7-calendar days. The day the juice is produced is considered the first day. Therefore, the date of production is considered the first day plus 6-calendar days to indicate the 7-calendar day expiration date.
- * Statements such as “Enjoy by” or “Best by” are considered quality statements
- * The following are also recommended to be placed on the label:
 - “Must keep refrigerated.”
 - “This juice is intended for immediate consumption.”



Guidelines for Safe Juicing Bottling Operations (continued)

Juice Sales & Delivery

- ◇ Bottled juice shall be transported at 41°F or less in approved commercial refrigeration unit or insulated commercial grade containers capable of maintaining temperature at 41°F or less.
- ◇ Approved insulated containers shall be transported in approved vehicles for immediate delivery to customers or other retail locations. An issued Food Peddler permit is required for immediate retail sales delivery to customers at farmer's markets or special events.
- ◇ Bottled juice shall be delivered to individuals for immediate consumption, for direct sales at farmer's markets, or other locations approved by the Department.

Additional Safeguards - Prohibited Service and Prohibited Sale

Food establishments that serve a highly susceptible population (e.g. child/adult day care centers, assisted living facilities, hospitals, nursing homes, senior centers, etc.) shall not serve prepackaged juice or a prepackaged beverage juice, that bears the warning label and they must serve only pasteurized juice.

“Highly susceptible population” means persons who are more likely than other people in the general population to experience foodborne disease because they are:

- ◇ Immunocompromised; preschool age children, or older adults; and
- ◇ Obtaining food at a facility that provides services such as custodial care, health care, or assisted living, such as a child or adult day care center, kidney dialysis center, hospital or nursing home, or nutritional or socialization services such as a senior center.
- ◇ For juice only, the population includes children who are age 9 or less and receive food in a school, day care setting, or similar facility that provides custodial care.

Maricopa County Environmental Services Department

esd.maricopa.gov

esplanreview@mail.maricopa.gov

602.506.6824

