



MATERIAL SPECIFICATION

CAHOON FARMS PROCESS CODE: -M7

MATERIAL: IQF SLICED APPLE ½” Heel - ASCORBIC ACID TREATED
(Individually Quick-Frozen Sliced Apples)

DESCRIPTION

Apple slices are prepared from sound and properly ripened apples. The apples possess similar varietal characteristics, which include good flesh color, character and flavor. The apples are practically free from defects (damaged units), free of rot, decay and other foreign materials. The fruit is washed prior to processing. The fruit is peeled, cored, trimmed, sliced, sorted, washed, drained and vacuum processed. The fruit remains in the vacuum solution for a length of time required for good penetration (length of time will depend on apple maturity) to comply with established residual levels. The fruit is drained after vacuum processing to ensure the slices do not have an excessive coating of vacuuming juice solution. The fruit is inspected throughout the production process to remove defective pieces. The fruit is rapidly handled prior to freezing and packaged promptly after freezing.

Apples are processed within a diameter range of 2 ½” to 4 ½”. This results in variation of finished product dimensions

Ascorbic acid and citric acid are the primary preservatives used to control browning. Salt is used to enhance flavor.

GENERAL REQUIREMENTS

- The product complies with all provisions of The Federal Food, Drug and Cosmetic Act
- The product is frozen in accordance with Good Commercial Practice (21 CFR 117) and stored at temperatures of -10°F or below for the preservation of the product and to eliminate excessive blockage
- Apple grading is in accordance with The United States Department of Agriculture Standards for frozen apples but modified to provide more statistically accurate assessments with reporting categories that provide for quantitative measurements rather than subjective evaluations.

ALLERGEN INFORMATION

Cahoon Farms does not process any product with currently known allergens (Milk, eggs, peanuts, tree nuts, fish, shellfish, soy, wheat, sesame).

The facility does have sensitizing agent (Sodium Metabisulfite) within the production facility. We have a working prevention and cross contamination policy and procedure.

GENETICALLY MODIFIED MATERIALS POLICY

Cahoon Farms does not use or intend to use Genetically Modified Materials. This product is Non-GMO certified through the Non-GMO project.

DEFINITIONS

Confidential	This Specification prepared and submitted by Cahoon Farms Inc. is considered a trade secret and is covered by non-disclosure agreements
Sliced	Apples consisting of segments cut longitudinally and radially from the core axis
Good Color	Apple possesses a reasonably uniform bright color characteristic of the variety.
Uniformity	The degree of wholeness and the consistency of cube size of the apple.
Practically Whole Slice	At least 90% by weight of product consists of whole or practically whole slices which are 1 1/4 inches in length or longer
Good Character	Means that the apples possess a reasonably uniform texture, are firm but not hard.
Harmless Extraneous Material	Any vegetable substance that is harmless including, but is limited to a stem, or portion thereof and blossom ends.
Seeds & Leaves	A Subcategory of HEM, defined separately to provide a more appropriate tolerance for this category. This category includes seeds, leaves or portions thereof and cores or portions of cores.
Light Blemish & Peel	Small pieces of Peel or Light Blemishes that do not distract from the eating quality but do appear different from the normal flesh color.
Dark Blemish	Non-harmful material that seriously distracts from the appearance and/or the eating quality of the apple dice
Carpel Tissue	A tougher vegetative material surrounding the seeds in the core of an apple
Foreign Material	Any material(s), not described above, whose quantity and presence is unanticipated by the customer or consumer purchasing the product and/or the regulatory body that has jurisdiction over the processing and distribution of the product.
Sample	All samples are one container, unless otherwise noted and drawn from the production line every 2,000 – 2,100 pounds produced.
Lot	A Lot Consists of 20,000-24,000 Pounds of Production

PHYSICAL REQUIREMENTS

Samples taken every pallet, reported as a lot average

Test	Specification
Light Blemish & Peel	Not more than 5% by weight of the total sample of slices possessing Light Blemish or Peel that is 3/8 inch in diameter or in aggregate area of the slice and not more than 2.6% average by weight in any one lot.
Dark Blemish	Not more than 1% by weight of the total sample of dices possessing a Dark Blemish
Carpel Tissue	Not more than 1/2 square inch aggregate area in a 32-ounce sample
HEM	Maximum of 15 blossom ends and stems per 400 pounds sampled (with a target of 10 hem per 400 pounds sampled)
Seeds & Leaves	Maximum of 15 per 400 pounds sampled

Samples taken every other pallet (reported as a lot average)

Test	Specification	Unit	Method	Notes
Raw Shear	350-800	psi	Measured on Mecmesin MultiTest5-z)	
Ascorbic Acid	120-180	ppm	AOAC Method 967.21	residual in apples; tested after freezing and thawing
Citric Acid	0.35-0.55	%	AOAC Method 940.15	in preserving solution

Salt	0.5-1.0	%	AOAC Method 971.19	in preserving solution
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Samples taken once per lot (reported as a lot average)

Test	Specification	Unit	Method	Notes
Pressure	14-20	PSI	Measured on a FTA-GS14 Electronic Penetrometer	average from 30 apples, 3 apples from 10 different bins
Aerobic Count	10,000	cfu/ gram		
Total Coliforms	20	cfu/ gram		
Yeast/mold	5,000	cfu/ gram		

All chemical and microbiological analysis listed above are conducted in accordance with "Standard Methods of Analysis" as listed in The Bacteriological Association Manual (BAM) of the Federal Food And Drug Administration, or other recognized standard publications, unless otherwise indicated. Microbiological samples are tested on a Biomerieux Tempo and Mini-Vidas.

PACKAGING REQUIREMENTS

- 1 Corrugated fiberboard boxes (40-pound finished product weight)
2. Polybag liner in each box (1.5 Mil in contrasting color to packaging and product)
3. Box sealed with colored tape
4. Every pallet has layer board between wooden pallet and product containers
5. Every pallet has cardboard layer on top layer of product containers
6. Complete stretch wrap of each pallet
7. Each container will be clearly marked with:
 - * Production lot code
 - * Product name
 - * Date of Manufacture
 - * Customer reference number if required
 - * Ingredient statement
 - * Packer name and address
 - * Net weight
 - * Kosher symbol
8. Stacking: 50 boxes/pallet (5 layers of 10 boxes)
9. Box Dimensions: 15.13"L x 11.11"W x13.06"H
10. Full Pallet Dimensions:48"L x 40"W x 70"H
11. Full Pallet Product Weight 2,000 lbs.

INGREDIENT STATEMENT

Apples, Salt, Ascorbic Acid, Citric Acid

STORAGE

- The product must be stored at -10 °F or below

SHIPPING REQUIREMENTS

- Product will be moved in a clean, well-maintained, insulated trailer with mechanical refrigeration.
- Transported at 0° F or below.
- Trailer inspection report will be available for each shipment
- The bill of lading shall contain the production lot code, and if applicable, the trailer seal number

THAWING PROCEDURES

It is highly recommended that the product not be thawed before product manufacturing. Ascorbic acid is a preservative with a high sensitivity to oxygen, light, heat, excessive air movement, maintenance temperature and storage conditions all of which have a definite impact on the thawing procedure to be used for each product. If thawing is required, it is imperative that specific procedures be developed to preserve the integrity of this raw material.

LOT CODING

Each Cahoon Farms container is labeled with a five-part numerical lot and product information code.

Example:

Lot # AAA-BB-CC-DD EEE

AAA – is a consecutive numerical lot number

BB - is a 2-digit number representing the fruit and variety

CC - is a 2-digit number representing the process code---the specific processing style and ingredients

DD - represents the year the apples were picked

EEE - is a 3-digit number representing the specific box/ pail number within that lot.