

METRIC

A-A-20333

August 28, 2000

COMMERCIAL ITEM DESCRIPTION

TRAIL MIX

The U.S. Department of Agriculture (USDA) has authorized the use of this Commercial Item Description.

1. SCOPE. This Commercial Item Description (CID) covers trail mix, a high energy food consisting of dried fruits, nuts, and/or seeds, candy, and chocolate packed in commercially acceptable containers, suitable for use by the Federal, State, local governments, and other interested parties.

2. PROCUREMENT NOTES.

2.1 Purchasers shall specify the following:

- Nut and fruit type(s), drying process(es), style(s), size(s), form(s), coating(s), and percent quantity by weight (Sec. 3.1.1 and 3.1.2)
- When analytical requirements are different than specified (Sec. 8.1).
- When analytical requirements need to be verified (Sec. 8.3).
- Manufacturer's/distributor's certification (Sec. 11.2) or USDA certification (Sec. 11.3).

2.2 Purchasers may specify the following:

- Nut and fruit flavoring(s), (Sec. 3.1.1 and 3.1.2).
- Pan coated chocolate, chocolate chips, carob chips, seeds, styles, and flavors (Sec. 3.1.3).
- Manufacturer's quality assurance (Sec. 11.1 with 11.1.1 or 11.1 with 11.1.2).
- Sample trail mixes (Sec. 6).

3. CLASSIFICATION. The trail mix shall conform to the following types, drying processes, styles, sizes, forms, flavorings, and coatings specified in the solicitation, contract, or purchase order.

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3.1.1 Nut Types, styles, sizes, forms, flavorings, and coatings.

Nut Type I - Shelled Almonds

Style 1 - Unblanched (natural) - brown skin intact

Style 2 – Blanched - brown skin removed

Size 1 - Whole

Size 2 - Diced

Size 3 - Pieces

Form 1 - Dry Roasted

Form 2 - Oil Roasted

Form 3 - Not Roasted (raw)

Flavoring 1 - Salted

Flavoring 2 - Coated 1/

Flavoring 3 - Seasoned 2/

Nut Type 2 - Shelled Walnuts

Color 1 - Light

Color 2 - Light Amber

Color 3 - Combination Light and Light Amber

Size 1 - Halves

Size 2 - Halves and Pieces

Size 3 - Pieces

Size 4 - Small Pieces

Flavoring 1 - Salted

Flavoring 2 - Coated 1/

Flavoring 3 - Seasoned 2/

Coating 1 - Antioxidant coated 3/

1/ Flavored coatings such as chocolate, yogurt, honey, etc. shall be specified by purchaser.

2/ Seasonings such as taco, cajun, BBQ, nacho, etc. shall be specified by purchaser.

3/ May prevent oxidative rancidity and increase shelf life.

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Nut Type 3 - Shelled Peanuts

Style 1 - Virginia blanched - skin removed

Style 2 - Runner blanched - skin removed

Style 3 - Spanish blanched - skin removed

Size 1 - Whole

Size 2 - Splits - separated half of a peanut kernel

Form 1 - Dry Roasted

Form 2 - Oil Roasted

Flavoring 1 - Salted

Flavoring 2 - Coated 1/

Flavoring 3 - Seasoned 2/

Nut Type 4 - Shelled Cashews

Size 1 - Wholes

Size 2 - Splits - kernels split naturally lengthwise

Size 3 - Butts - kernels broken cross wise (evenly or unevenly)

Size 4 - Pieces - small broken kernels

Form 1 - Dry Roasted

Form 2 - Oil Roasted

Form 3 - Not Roasted (raw)

Flavoring 1 - Salted

Flavoring 2 - Coated 1/

Flavoring 3 - Seasoned 2/

Nut Type 5 - Shelled Filberts (Hazelnuts)

Size 1 - Whole Kernels

Size 2 - Whole and Broken- whole nuts, halves and pieces

Size 3 - Diced - varying sizes from fine to large

Form 1 - Dry Roasted

Form 2 - Not Roasted (raw)

1/ Flavored coatings such as chocolate, yogurt, honey, etc. shall be specified by purchaser.

2/ Seasonings such as taco, cajun, BBQ, nacho, etc. shall be specified by purchaser.

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Flavoring 1 - Salted

Flavoring 2 - Coated 1/

Flavoring 3 - Seasoned 2/

Nut Type 6 - Shelled Pecans

Size 1 - Halves

Size 2 - Halves and Pieces

Size 3 - Pieces

Form 1 - Dry Roasted

Form 2 - Not Roasted (Raw)

Flavoring 1 - Salted

Flavoring 2 - Coated 1/

Flavoring 3 - Seasoned 2/

Nut Type 7 - Other

1/ Flavored coatings such as chocolate, yogurt, honey, etc. shall be specified by purchaser.

2/ Seasonings such as taco, cajun, BBQ, nacho, etc. shall be specified by purchaser.

3.1.2 Fruit types, drying processes, styles, sizes, forms, coatings, and flavorings.

Fruit Type 1 - Dried Pitted Plums

Size 1 - Diced - cut into $\frac{1}{4}$ " to $\frac{3}{4}$ " pieces

Size 2 - Other

Coating 1 - Coated with Dextrose

Coating 2 - Coated with Vegetable Oil

Coating 3 - Other

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

4/ Flavored coating such as chocolate, carob, yogurt, honey, etc. shall be specified by purchaser.

5/ Spices such as cinnamon shall be specified by purchaser.

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Fruit Type 2 - Dried Date Pieces

Size 1 - Diced - 3/8" to 3/16" pieces

Size 2 - Extruded - gives uniform product based on specific size needs

Size 3 - Other

Coating 1 - Coated with Dextrose

Coating 2 - Coated with Oat Flour

Coating 3 - Other

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

Fruit Type 3 - Raisins

Style 1 - Natural Seedless - dark brown color, dried under the sun

Style 2 - Dipped Seedless - light brown color, bathed in hot water, mechanically dehydrated

Style 3 - Seedless Zante Currants- very dark color, mini raisin, tart tangy flavor (sizes are not applicable to currants)

Size 1 - Select

Size 2 - Small/Midget

Size 3 - Mixed

Coating 1 - Coated with Dextrose

Coating 2 - Coated with Vegetable Oil

Coating 3 - Other

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

4/ Flavored coating such as chocolate, carob, yogurt, honey, etc. shall be specified by purchaser.

5/ Spices such as cinnamon shall be specified by purchaser.

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Fruit Type 4 - Dried Fig Pieces

Style 1 - White Figs: Calimyrna, Adriatic, Kadota varieties

Size 1 - Diced

Size 2 - Extruded

Size 3 - Other

Style 2 - Black Figs: Mission

Size 1 - Diced

Size 2 - Extruded

Size 3 - Other

Style 3 - Blended varieties of black and white figs

Size 2 - Extruded

Form 1 - Processed with Sulfur dioxide (SO₂)

Form 2 - No Sulfur dioxide (SO₂)

NOTE: Sulfur dioxide (SO₂) is used in the drying process to prevent enzymatic browning

Coating 1 - Coated with Dextrose

Coating 2 - Coated with Rice Flour

Coating 3 - Coated with Oat Flour

Coating 4 - Other

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

Fruit Type 5 - Dried Pears

Size 1 - Sliced - various sizes by width (longest measurement obtainable measured at right angles to a line running from stem end to calyx end).

Size 2 - Diced

Size 3 - Other

4/ Flavored coating such as chocolate, carob, yogurt, honey, etc. shall be specified by purchaser.

5/ Spices such as cinnamon shall be specified by purchaser.

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Form 1 - Processed with Sulfur dioxide (SO₂)

Form 2 - No Sulfur dioxide (SO₂)

Coating 1 - Coated with Dextrose

Coating 2 - Coated with Vegetable Oil

Coating 3 - Other

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

Fruit Type 7 - Dried Pineapple

Size 1 - Slice

Size 2 - Diced

Size 3 - Other

Form 1 - Processed with Sulfur dioxide (SO₂)

Form 2 - No Sulfur dioxide (SO₂)

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

Fruit Type 8 - Dried Apricots

Size 1 - Halves - various sizes by diameter (measured across the face of the fruit when restored to its normal shape).

Size 2 - Diced

Size 3 - Other

Form 1 - Processed with Sulfur dioxide (SO₂)

Form 2 - No Sulfur dioxide (SO₂)

4/ Flavored coating such as chocolate, carob, yogurt, honey, etc. shall be specified by purchaser.

5/ Spices such as cinnamon shall be specified by purchaser.

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Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

Fruit Type 9 - Dried Papaya

Size 1 - Sliced

Size 2 - Diced

Size 3 - Other

Form 1 - Processed with Sulfur dioxide (SO₂)

Form 2 - No Sulfur dioxide (SO₂)

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (Spiced) 5/

Flavoring 3 - Other

Fruit Type 10 - Dried Coconut

Size 1 - Flaked - flat strips

Size 2 - Chip - wide thin chips

Size 3 - Other

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (Spiced) 5/

Flavoring 3 - Other

The following fruits can be dried by evaporation or osmosis. If neither is selected, the fruit shall be dried by evaporation.

Fruit Type 11 - Dried Banana

Process 1 - Drying by evaporation

Process 2 - Drying by osmosis 6/

4/ Flavored coating such as chocolate, carob, yogurt, honey, etc. shall be specified by purchaser.

5/ Spices such as cinnamon shall be specified by purchaser.

6/ Reference CID Fruits, Osmotically Dried, A-A-20299A for quality requirements.

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Size 1 - Chips

Size 2 - Other

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

Fruit Type 12 - Dried Peaches

Process 1 - Drying by evaporation

Process 2 - Drying by osmosis 6/

Size 1 - Halves - various sizes by diameter (measured across the face of the fruit when restored to its normal shape).

Size 2 - Diced

Size 3 - Other

Form 1 - Processed with Sulfur dioxide (SO₂)

Form 2 - No Sulfur dioxide (SO₂)

Coating 1 - Coated with Dextrose

Coating 2 - Coated with Vegetable Oil

Coating 3 - Other

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

Fruit Type 13 - Dried Apples

Process 1 - Drying by evaporation

Process 2 - Drying by osmosis 6/

Size 1 - Halves - various sizes by diameter (measured across the face of the fruit when restored to its normal shape).

Size 2 - Diced

Size 3 - Other

4/ Flavored coating such as chocolate, carob, yogurt, honey, etc. shall be specified by purchaser.

5/ Spices such as cinnamon shall be specified by purchaser.

6/ Reference CID Fruits, Osmotically Dried, A-A-20299A for quality requirements.

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Form 1 - Processed with Sulfur dioxide (SO₂)

Form 2 - No Sulfur dioxide (SO₂)

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

Fruit Type 14 - Dried Cherries

Process 1 - Drying by evaporation

Process 2 - Drying by osmosis 6/

Style 1 - Sweet

Style 2 - Red Tart

Size 1 - Whole

Size 2 - Sliced

Size 3 - Other

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

Fruit Type 15 - Dried Blueberries

Process 1 - Drying by evaporation

Process 2 - Drying by osmosis 6/

Style 1 - Cultivated

Style 2 - Wild

Size 1 - Whole

Size 2 - Sliced

Size 3 - Other

4/ Flavored coating such as chocolate, carob, yogurt, honey, etc. shall be specified by purchaser.

5/ Spices such as cinnamon shall be specified by purchaser.

6/ Reference CID Fruits, Osmotically Dried, A-A-20299A for quality requirements

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Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

Fruit Type 16 - Dried Strawberries

Process 1 - Drying by evaporation

Process 2 - Drying by osmosis 6/

Size 1 - Sliced

Size 2 - Diced

Size 3 - Other

Flavoring 1 - Coated 4/

Flavoring 2 - Seasoned (spiced) 5/

Flavoring 3 - Other

Fruit Type 17 - Dried Cranberries

Process 1 - Drying by evaporation

Process 2 - Drying by osmosis 6/

Size 1 - Whole

Size 2 - Sliced

Size 3 - Diced

Size 4 - Other

Flavoring 1 - Coated 5/

Flavoring 2 - Seasoned (spiced) 6/

Flavoring 3 - Other

Fruit Type 18 - Other

4/ Flavored coating such as chocolate, carob, yogurt, honey, etc. shall be specified by purchaser.

5/ Spices such as cinnamon shall be specified by purchaser.

6/ Reference CID Fruits, Osmotically Dried, A-A-20299A for quality requirements.

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3.1.3 Candy, chocolate chips, seeds, other.

Type 1 - Pan Coated Candy

Style 1 - Chocolate

Style 2 - Peanut Butter

Style 3 - Other

Type 2 - Chips

Style 1 - Semi-sweet Chocolate

Style 2 - White chocolate

Style 3 - Other

Type 3 - Hulled Seeds

Style 1 - Sunflower seeds

Style 2 - Pumpkin seeds

Flavor 1 - Roasted

Flavor 2 - Not roasted (raw)

Type 4 - Roasted soybeans

Style 1 - Whole soybean

Style 2 - Soy nut

Flavoring 1 - Salted

Flavoring 2 - Coated 2/

Flavoring 3 - Seasoned 3/

Type 4 - Other

2/ Flavored coatings such as chocolate, yogurt, honey, etc. shall be specified by purchaser.

3/ Seasonings such as taco, cajun, BBQ, nacho, etc. shall be specified by purchaser.

A-A-20333**4. MANUFACTURER'S/DISTRIBUTOR'S NOTES. Manufacturer's/distributor's products shall meet the requirements of the:**

- Salient characteristics (Sec 7).
- Analytical requirements: *as specified by the purchaser* (Sec.8).
- Manufacturer's/distributor's assurance (Sec. 9).
- Regulatory requirements (Sec 10).
- Quality assurance provisions: *as specified by the purchaser* (Sec.11).

5. DEFINITIONS.

5.1 Drying by evaporation. Fruit is dried in warm temperatures causing the moisture to evaporate. Low humidity allows moisture to move quickly from the food to the air. Air current speeds up drying moving the surrounding moist air away from the food.

5.2 Drying by osmosis. Fruit is soaked in a sugar solution. The moisture from the fruit flows into the surrounding syrup, partially drying the fruit.

6. EXAMPLES OF POSSIBLE TRAIL MIXES**Trail Mix Example 1**

| | |
|--|-------|
| Dried Cranberries, Whole or Dried Cherries, Whole, Red Tart | 20.0% |
| Dried Date Pieces, Diced, Coated with Dextrose | 20.0% |
| Dried Fig Pieces, Diced, Coated with Dextrose, No Sulfur Dioxide | 20.0% |
| Dried Pitted Plums, Diced, Coated with Dextrose | 20.0% |
| Shelled Walnuts, Light Amber, Small Pieces | 20.0% |

Trail Mix Example 2

| | |
|--|------------|
| Shelled Almonds, Unblanched, Whole, Not Roasted | 15.0-20.0% |
| Shelled Walnuts, Combination, Halves and Pieces | 15.0-20.0% |
| Plums, Diced, Coated with Vegetable Oil or Dextrose | 5.0-10.0% |
| Raisins, Natural Seedless, Select, Coated with Vegetable Oil | 5.0-10.0% |
| Dates, Diced, Coated with Dextrose | 5.0-10.0% |

Trail Mix Example 2 (cont.)

| | |
|---|------------|
| Dried Apricots, Diced, Processed with Sulfur Dioxide | 5.0-10.0% |
| Dried Pears, Diced, Processed with Sulfur Dioxide | 5.0-10.0% |
| Dried Fig Pieces, Black or White Figs, Coated with Dextrose | 5.0-10.0% |
| Chocolate Chips, Semi-Sweet Chocolate | 10.0-20.0% |

A-A-20333**Trail Mix Example 3**

| | |
|--|------------|
| Raisins, Natural Seedless, Select, Coated with Vegetable Oil | 15.0-20.0% |
| Shelled Peanuts, Virginia Blanched, Yogurt Coated | 15.0-20.0% |
| Shelled Peanuts, Virginia Blanched, Oil Roasted | 15.0-20.0% |
| Dried Date Pieces, Diced, Coated with Dextrose | 10.0-15.0% |
| Hulled Seeds, Sunflower, Not Roasted | 10.0-15.0% |
| Raisins, Natural Seedless, Select, Yogurt Coated | 10.0-15.0% |
| Shelled Almonds, Unblanched, Whole, Not Roasted, Yogurt Coated | 5.0-10.0% |

Trail Mix Example 4

| | |
|---|------------|
| Shelled Peanuts, Runner Blanched, Oil Roasted, Salted | 25.0-30.0% |
| Raisins, Natural Seedless, Select | 25.0-30.0% |
| Pan Coated Candy, Chocolate | 15.0-20.0% |
| Shelled Almonds, Unblanched, Whole, Oil Roasted, Salted | 15.0-20.0% |
| Cashews, Splits, Oil Roasted, Salted | 10.0-15.0% |

Trail Mix Example 5

| | |
|--|------------|
| Raisins, Natural Seedless, Select, Coated with Vegetable Oil | 15.0-20.0% |
| Shelled Peanuts, Virginia Blanched, Dry Roasted | 10.0-15.0% |
| Roasted Soybeans | 10.0-15.0% |
| Dried Apricots, Diced, Processed with Sulfur Dioxide | 10.0-15.0% |
| Hulled Seeds, Sunflower, Not Roasted | 5.0-10.0% |
| Shelled Almonds, Unblanched, Whole, Not Roasted | 5.0-10.0% |

7. SALIENT CHARACTERISTICS**7.1 Raw materials.****7.1.1 Shelled Nuts.**

| PRODUCT | QUALITY REQUIREMENTS |
|----------------|--|
| Almonds | U.S. No. 1 or better |
| Walnuts | U.S. Fancy for shell and foreign matter content, U.S. Commercial or better for all other standards |

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| PRODUCT | QUALITY REQUIREMENTS |
|-----------------------|--|
| Virginia Type Peanuts | U.S. No. 1 or better for whole peanuts, U.S. Virginia Splits for split peanuts |
| Runner Type Peanuts | U.S. No 1 Runner or better for whole peanuts, U.S. Runner Splits for split peanuts |
| Pecans | U.S. Grade No. 1 |
| Cashews and Filberts | Good Commercial Quality |

7.1.2 Dried Fruit.

| PRODUCT | QUALITY REQUIREMENTS |
|---|--|
| Pitted Plums | U.S. Grade B or better |
| Raisins | U.S. Grade A for caps and stems U.S. Grade B for maturity and other defects |
| Date Pieces | U.S. Grade C (Dry) or better |
| Figs | U.S. Grade C or better for Diced Figs Meet U.S. FDA tolerances for “Defect Action Levels” for fig paste, FDA/CPG 550.350 8/96 for Extruded Figs |
| Peaches | U.S. Grade A for pieces of pits, U.S. Grade B or better for all other standards |
| Pears | U.S. Grade B or better |
| Apples | U.S. Grade B or better |
| Apricots | U.S. Grade A for pieces of pits, U.S. Grade B or better for all other standards |
| Pineapple, Banana, Papaya, Cherries, Blueberries, Strawberries, Cranberries | Good Commercial Quality |

7.2 Processing. Dried cherries, blueberries, plums, strawberries, and cranberries shall be sprayed lightly with sunflower oil or other vegetable oil not greater than 1 percent to prevent clumping. All oils including roasting and coating oils used in processing shall be refined oil. No coconut, palm, or palm kernel oil shall be allowed in the roasting process. The oil shall be thoroughly refined, deodorized, and free from rancidity and objectionable flavor. In addition, roasting oils shall be stabilized with suitable antioxidants. If used, the salt shall be of Food Chemicals Codex purity, white, refined sodium chloride with or without anticaking agents, free from extraneous matter, and may be treated with antioxidants. If nuts are oil roasted, granule size or type of salt shall be dendritic or fine flake salt. If nuts are dry roasted, a flour salt or a pulverized salt, 85 percent of which shall pass through a U.S. Standard No. 200 sieve, shall be used. Iodized salt shall not be used. All trail mix shall be prepared in accordance with good manufacturing practices.

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7.3 Flavor and odor. The trail mix shall have no foreign odors or flavors, such as, but not limited to, stale, yeasty, burnt, musty, rancid or moldy.

7.4 Color. The dried fruit processed with sulfur dioxide shall have a bright color that is typical of the fruit variety. Roasted nuts shall be slightly browned.

7.5 Consistency. The trail mix shall be free flowing with minimal clumps and stickiness.

7.6 Date of pack requirement. Unless otherwise specified in the solicitation, contract, or purchase order, the trail mix shall be manufactured from the latest year's crop.

7.7 Preservatives. Dried pitted plums over 25% moisture and dried figs over 22% moisture shall be processed with not less than 400 ppm and not more than 1200 ppm potassium sorbate. Dried peaches, pears, apples, pineapple, papaya, figs, and apricots processed with sulfur dioxide (SO₂) to protect the color shall be processed with not more than 2500 ppm of SO₂.

7.8 Shelf life. The manufacturer shall guarantee a minimum shelf life for the trail mix of three months from the date of delivery if the product has been stored in a cool 15.56⁰C (60⁰F), dry place. **NOTE:** The shelf life may be doubled if the trail mix stock is kept at refrigerated temperatures below 4.44⁰C (40⁰F).

7.9 Foreign material/defects. Trail mix components that have a U.S. Food and Drug Administration (FDA) tolerance for "Defect Action Levels" shall not exceed the specified U.S. FDA tolerance. The shelled raw nuts shall be clean, sound, and wholesome, provided not more than 5 percent, by weight, of the shelled raw nuts shall be affected by any defect which materially detracts from the appearance of the nut and further provided that not more than 2 percent, by weight, shall be affected by rancidity, mold, decay, or insect or worm injury. The peanuts shall be negative for aflatoxin. The dried diced plums shall not exceed 0.1% pits or pit fragments 2mm or larger, by weight with fruit attached, in the finished product. The dried diced figs shall have a stem count not to exceed 10 per pound and the extruded diced figs shall have a stem count not to exceed 5 per pound. The dates shall have the calyxes removed before dates are chopped or diced. The dried cherries shall be practically free of pits with a maximum of one pit per five pounds of dried fruit. The dried fruit shall be clean, sound, wholesome, and free from evidence of foreign material such as, but not limited to, dirt, insect parts, hair, wood, glass, or metal.

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8. ANALYTICAL REQUIREMENTS.

8.1 Chemical and microbiological tolerances. Unless otherwise specified in the solicitation, contract or purchase order, analytical and microbiological requirements for all trail mix shall comply with the following:

| | Aerobic (Standard) Plate Count | Yeast and Mold | Coliform |
|--------------|--|---|--|
| Apricots | Less than 1,000 per gram in any sample | Less than 1,000 Colony Forming Units (CFU) per gram | Less than 10 per gram using the MPN (Most Probable Number) technique |
| Apples | Less than 1,000 per gram in any sample | Less than 1,000 CFU per gram | Less than 10 per gram using the MPN technique |
| Peaches | Less than 1,000 per gram in any sample | Less than 1,000 CFU per gram | Less than 10 per gram using the MPN technique |
| Papaya | Less than 1,000 per gram in any sample | Less than 1,000 CFU per gram | Less than 10 per gram using the MPN technique |
| Pears | Less than 1,000 per gram in any sample | Less than 1,000 CFU per gram | Less than 10 per gram using the MPN technique |
| Pineapple | Less than 1,000 per gram in any sample | Less than 1,000 CFU per gram | Less than 10 per gram using the MPN technique |
| Banana | Less than 1,000 per gram in any sample | Less than 1,000 CFU per gram | Less than 10 per gram using the MPN technique |
| Cherries | Less than 1,000 per gram in any sample | Less than 1,000 CFU per gram | Less than 10 per gram using the MPN technique |
| Blueberries | Less than 1,000 per gram in any sample | Less than 1,000 CFU per gram | Less than 10 per gram using the MPN technique |
| Strawberries | Less than 1,000 per gram in any sample | Less than 1,000 CFU per gram | Less than 10 per gram using the MPN technique |
| Cranberries | Less than 1,000 per gram in any sample | Less than 1,000 CFU per gram | Less than 10 per gram using the MPN technique |
| Figs | Less than 100,000 per gram in any sample | Less than 20,000 CFU per gram | Less than 100 per gram using the MPN technique |
| Dates | Less than 50,000 per gram in any sample | Less than 5,000 CFU per gram | Less than 100 per gram using the MPN technique |
| Coconut | Less than 5,000 per gram in any sample | Less than 1,000 CFU per gram | Less than 10 per gram using the MPN technique |

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| | Aerobic (Standard) Plate Count | Yeast and Mold | Coliform |
|-----------|--|---|--|
| Plums | Less than 1,000 per gram in any sample average with up to 2,000 per gram in 20% of the samples | Less than 500 CFU per gram sample average with up to 1,000 CFU per gram in 20% of the samples | Less than 100 per gram using the MPN technique |
| Nut Types | | Less than 5,000 CFU per gram | Less than 200 per gram |

| | |
|----------------------|--|
| Moisture | Finished product shall not exceed 25.0 percent <u>7/</u> |
| <i>E. coli</i> | Less than 10 per gram using the MPN technique |
| <i>Staph. aureus</i> | Less than 10 per gram using the MPN technique |
| Aflatoxin | Not more than 20 parts per billion (20 ppb) <u>8/</u> |
| Potassium sorbate | Not less than 400 ppm and greater than 1200 ppm |
| Sulfur Dioxide | Less than 2500 ppm in each individual dried fruit processed with sulfur dioxide Less than 10 ppm if SO ₂ is not used in processing |

7/ It is recommended that the tree nuts that go into the finished product be below 4% moisture to prevent the nuts from becoming soft from moisture migration from the fruit.

8/ All shelled raw peanuts used in the finished product shall be sampled by the Fresh Products Branch (FPB), Fruit and Vegetable Programs (FVP), Agricultural Marketing Service (AMS), USDA, for aflatoxin testing. The shelled raw peanuts shall be tested for aflatoxin by the Science and Technology Program (S&TP), AMS, USDA.

8.2 Product Verification. When USDA verification of analytical requirements is specified in the solicitation, contract, or purchase order, the following procedures are followed.

8.2.1 Sampling procedures. USDA inspection service will select the number of product containers based on USDA inspection service sampling procedures and plans.

8.2.2 Composite sample. Analytical and microbiological testing shall be performed on a composite sample. The composite sample shall be 454 grams (1 pound) and prepared from subsamples drawn from randomly selected containers. The number of subsamples used to create the composite shall be based on USDA procedures.

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8.3 Analytical testing. When specified in the solicitation, contract, or purchase order, the analyses shall be made in accordance with the following methods from the Official Methods of Analysis of the AOAC International or as specified below:

| <u>Test</u> | <u>Method</u> |
|-----------------------------------|----------------------|
| Sample Preparation | 935.52 |
| Moisture (50% or greater nuts) | 925.40 |
| Moisture (50% or less nuts) | 934.06 |
| Sulfur Dioxide (SO ₂) | 990.28 |
| Potassium sorbate | 983.16 |
| Standard Plate Count | 966.23 and/or 990.12 |
| Yeast and Mold | 997.02 <u>9/</u> |
| Coliform | 996.24 and/or 992.30 |
| <i>E. coli</i> | 996.24 and/or 992.30 |
| <i>Staph. aureus</i> | 987.09 |

9/ Compendium of Methods for the Microbiological Examination of Foods, Third Edition, 1992, Chapter 16, Section 16.5

8.4 Test results. Test samples shall be sent to the appropriate Science and Technology Program (S&TP) laboratory for aflatoxin testing. Failure of product to meet Food and Drug Administration guidelines for aflatoxin in processed peanut products shall be cause for rejection of the product. The test results for moisture shall be reported to the nearest 0.1 percent. The test results for sulfur dioxide and potassium sorbate shall be reported to the nearest ppm. The test results for standard plate count shall be reported to the nearest 100 per gram. The test results for yeast and mold shall be reported to the nearest 50 per gram. The test results for *Coliform* and *E. coli* shall be reported to the nearest MPN. Any result not conforming to the finished product requirements shall be cause for rejection of the lot.

9. MANUFACTURER'S PRODUCT ASSURANCE. The manufacturer shall certify that the trail mix provided shall meet the salient characteristics of this CID, conform to the their own specifications, standards, and quality assurance practices, and be the same prepared trail mix offered for sale in the commercial market. The purchaser reserves the right to require proof of conformance.

10. REGULATORY REQUIREMENTS. The delivered trail mix shall comply with all applicable Federal, State, and local mandatory requirements and regulations relating to the preparation, packaging, labeling, storage, distribution, and sale of trail mix within the commercial marketplace. Delivered trail mix shall comply with all applicable provisions of the Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder.

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11. QUALITY ASSURANCE PROVISIONS. *Purchaser shall specify 11.2 or 11.3; purchaser may specify 11.1 with 11.1.1 or 11.1 with 11.1.2.*

11.1 Manufacturer's quality assurance. When required in the solicitation, contract, or purchase order, the product manufacturer shall be required to provide evidence, by certificate, that the manufacturing plant has undertaken one of the following quality assurance measures within 12 months prior to providing a bid, or no later than 10 business days from the date of awarding of the contract. Failure to provide this documentation within the proper time frame may result in the contract being terminated for cause.

11.1.1 Plant systems audit. A plant systems audit (PSA) conducted by USDA, Agricultural Marketing Service (AMS), or another audit performed by a third party auditing service is required within 12 months prior to the date of the awarding of the contract. *(An AMS PSA verifies the manufacturer's capability to produce products in a clean, sanitary environment in accordance with Title 21 Code of Federal Regulations Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food), and have in place an internal quality assurance program. The AMS PSA determines the manufacturer's ability to produce under this CID, if the products of interest are identified at the time of the PSA.)*

11.1.2 Plant survey. A plant survey shall be conducted by USDA, AMS, or another survey performed by a third party auditing service is required within 12 months prior to the date of the awarding of the contract. *(An AMS plant survey audit verifies that, at the time of the survey, the manufacturer produces products in a clean, sanitary environment in accordance with Title 21 Code of Federal Regulations Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food.)*

11.2 Manufacturer's/distributor's certification. When required in the solicitation, contract, or purchase order, the manufacturer/distributor will certify that the finished trail mix distributed meets or exceeds the requirements of this CID.

11.3 USDA certification. When required in the solicitation, contract, or purchase order that product quality and acceptability or both be determined, the Processed Products Branch (PPB), FVP, AMS, USDA, shall be the certifying program. PPB inspectors shall certify the quality and acceptability of the trail mix in accordance with PPB procedures which include selecting random samples of the packaged trail mix, evaluating the samples for conformance with the salient characteristics of this CID and other contractual requirements, and documenting the findings on official PPB score sheets and/or certificates. In addition, when required in the solicitation, contract, or purchase order, PPB inspectors will examine the trail mix for conformance to the United States Standards for Condition of Food Containers in effect on the date of the solicitation.

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12. PACKAGING. Preservation, packaging, packing, labeling, and case marking shall be commercial unless otherwise specified in the solicitation, contract, or purchase order.

13. USDA INSPECTION NOTES. When Section 11.3 is specified in the solicitation, contract, or purchase order, USDA certification shall include evaluation of the quality and condition of samples of packaged trail mix, and compliance with requirements in the following areas:

- Salient characteristics (Sec. 7.1-.7.4, 7.8, and 7.9).
- Analytical requirements *when specified in the solicitation, contract, or purchase order* (Sec. 8.3). When USDA analytical testing is specified, PPB inspection personnel shall select samples and submit them to the USDA, S&TP laboratory for analysis.
- Packaging requirements (Sec. 12 or as specified in the solicitation, contract, or purchase order).

14. REFERENCE NOTES.

14.1 USDA certification contact.

14.1.1 USDA peanut certification. For USDA peanut certification, contact the **Branch Chief, FPB, FVP, AMS, USDA, STOP 0240, 1400 Independence Avenue, SW, Washington, DC 20250-0247, telephone (202) 720-5870, Fax (202) 720-5136, or via E-mail: larry.lace@usda.gov.**

14.1.2 USDA finished product certification. For USDA certification, contact the **Branch Chief, PPB, FVP, AMS, USDA, STOP 0247, 1400 Independence Avenue, SW, Washington, DC 20250-0247, telephone (202) 720-4693, Fax (202) 690-1527, or via E-mail: james.rodeheaver@usda.gov.**

14.2 Analytical testing and technical information. For USDA technical information on analytical testing, contact the **Branch Chief, Technical Service Branch, S&TP, AMS, USDA, STOP 0272, 1400 Independence Avenue, SW, Washington, DC 20250-0272, telephone (202) 690-0621, or via E-mail: anita.okrend@usda.gov.**

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14.3 Sources of documents.

14.3.1 Source of information for nongovernmental documents are as follows :

Copies of the BAM and Official Methods of Analysis of the AOAC International may be obtained from: **AOAC International, 481 North Frederick Avenue, Suite 500, Gaithersburg, MD 20877, telephone (301) 924-7077. Internet address: <http://www.aoac.org>.**

Copies of the Compendium of Methods for the Microbiological Examination of Foods, Third Edition, 1992, may be obtained from: **American Public Health Association, 1015 15th Street, NW, Washington, DC 20005-2605. Internet address: <http://www.apha.org>.**

14.3.2 Sources of information for governmental documents are as follows :

Applicable provisions of the Federal Food, Drug, and Cosmetic Act are contained in 21 CFR Parts 1 to 199. This document may be purchased from: **Superintendent of Documents, ATTN: New Orders, P.O. Box 371954, Pittsburgh, PA 15250-7954.** Credit card (MasterCard or Visa) purchases may be made by calling the Superintendent of Documents on (202) 512-1803 **or on the Internet at: <http://www.nara.gov/fedreg>.**

Copies of the United States Standards for Condition of Food Containers are available from: **Chairperson, Condition of Container Committee, USDA, STOP 0243, 1400 Independence Avenue, SW, Washington, DC 20250-0243, telephone (202) 720-9939, Fax (202) 690-0102, via E-mail: FQAStaff@usda.gov or on the Internet at: <http://www.ams.usda.gov/fv/fvqual.htm>.**

Requests for copies, beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: **Head, Food Quality Assurance Staff, AMS, USDA, STOP 0243, 1400 Independence Avenue, SW, Washington, DC 20250-0243, telephone (202) 720-9939, Fax (202) 690-0102, via E-mail: FQAStaff@usda.gov or on the Internet at: <http://www.ams.usda.gov/fv/fvqual.htm>.**

Military activities should submit responses for copies of this CID to: **Standardization Documents Order Desk, Defense Automation Printing Service, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.**

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MILITARY INTERESTS:

Custodians

Army - GL
Navy - SA
Air Force - 35

Review Activities

Army - MD, QM
Navy - MC

CIVIL AGENCY COORDINATING ACTIVITIES:

DOJ - BOP
HHS - NIH, IHS
USDA - FV
VA - OSS

PREPARING ACTIVITY:

USDA - FV

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