

The J. M. Smucker Company  
Grandview, WA

**Item 51018**

**Product**      **APPLE - JUICE CONCENTRATE - 71 BRIX - CARBON TREATED - LIGHT COLOR**

**Definition**      The product shall be classified as Smucker juice grade prepared by using sound, properly-ripened, fresh apples which have been cleaned, washed, properly-drained, sorted, and inspected. This product will be grown, prepared, processed, and packed in accordance with Good Manufacturing Practices and the Smucker Quality System.

**Customer**      Internal and Industrial

**Ingredient**      Apples. No preservatives added.

**Input Fruit**      Cull or orchard run (see juice stock grading standards). No fallen apples (grounders).

**Downgrade Codes**      None

ATTRIBUTES    STANDARDS AND TOLERANCES

**Variety**      Golden Delicious, Red Delicious, Fuji, Braeburn, Granny, & Jonagolds

**Color**

- Lighter Golden color at 11.5° brix
- Color range should not be darker than Extra White on the USDA Honey Standard
- Hunter: L = 45-65      a = -4 to 2      b = 10-18      (typical values at 6.8° brix)
- 40% - 60% transmission at 11.5° brix on a Spectronic 20 at 440 nm (for color)
- 91% - 99% transmission at 11.5° brix on a Spectronic 20 at 625 nm (for haze)

**Clarity**

- Free of haze
- NTU less than 10.0 at 6.4° brix

**Flavor & Odor**

- Fresh, fruity, apple flavor profile desired
- Must be free of earthy, moldy, fermented, cooked, metallic or other undesirable flavors and odors

**Absence of Defects**

- Free of extraneous matter such as stems, fiber, dark particles or other foreign material which affect the appearance or eating quality of the product

**Patulin**

- Not to exceed 50 ppb

*Pete Samuels*  
530-899-5035

*5.50  
Lester*



- Labeling Information* Product container label must clearly indicate:
- Product name
  - Ingredients
  - Net weight
  - Buyer RM code
  - Production date
  - Drum number
  - Packer and distributor name & address
  - **Unmarked containers will not be accepted**
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**QC SPECIAL PROCEDURES**

- Tests* • Product testing shall be performed on a continuous basis for each draw off or batch.
- Sampling* • Sampling plans for micro, Patulin and pesticide residues to be coordinated by the QC Manager
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**GENERAL GUIDELINES**

- Freezing*
- Ambient storage before freezing shall not exceed 2 hours
  - Achieve 32° F core temperature in 48 hours
  - 0° F within 4 days
  - Maintain storage/distribution at -10° F to 0° F

<b>Product</b>	<b>APPLE – CONCENTRATE -- 71 BRIX -- CARBON TREATED -- BULK</b>
<b>Definition</b>	The Concentrate shall be prepared from properly matured, sound, wholesome, fresh apples which have been processed, depectinized, decolorized, filtered, and concentrated to 71° brix. This product will be grown, prepared, processed, and packed in accordance with Good Manufacturing Practices and the Smucker Quality System.
<b>Customer</b>	Internal and Industrial
<b>Ingredient</b>	Apples. No preservatives added.
<b>Input Fruit</b>	Cull or orchard run (see juice stock grading standards). No fallen apples (grounders).
<b>Downgrade Codes</b>	None

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**ATTRIBUTES**    **STANDARDS AND TOLERANCES**

<b>Variety</b>	Golden Delicious, Red Delicious, Fuji, Braeburn, Granny, & Jonagolds
<b>Color</b>	<ul style="list-style-type: none"><li>• Color range should not be darker than <u>Extra White</u> Standard on the USDA Honey Standard</li><li>• Hunter: L = 45-65            a = -4 to 2            b = 10-18 (typical values at 6.8° brix)</li><li>• 40% - 60% transmission at 11.5° brix on a Spectronic 20 at 440 nm (for color)</li><li>• 91% - 99% transmission at 11.5° brix on a Spectronic 20 at 625 nm (for haze)</li></ul>
<b>Clarity</b>	<ul style="list-style-type: none"><li>• Free of haze</li><li>• NTU less than 10.0 at 6.4° brix</li></ul>
<b>Flavor &amp; Odor</b>	<ul style="list-style-type: none"><li>• Fresh, fruity, apple flavor profile desired</li><li>• Must be free of earthy, moldy, fermented, cooked, metallic or other undesirable flavors and odors</li></ul>
<b>Absence of Defects</b>	<ul style="list-style-type: none"><li>• Free of extraneous matter such as stems, fiber, dark particles or other foreign material which affect the appearance or eating quality of the product</li></ul>
<b>Patulin</b>	<ul style="list-style-type: none"><li>• Not to exceed 50 ppb</li></ul>

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**ATTRIBUTES STANDARDS AND TOLERANCES** (continued)

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|---|--|
| <i>Brix</i>                                 | • $71^{\circ} \pm 0.5^{\circ}$   |
| <i>pH</i>                                   | • Naturally-occurring. Typical range of $3.5^{\circ} \pm 0.5^{\circ}$                    |
| <i>Acidity</i>                              | • Naturally occurring. Typical range of $1.3 \pm .35$ (expressed as % w/w as Malic Acid) |
| <i>Pesticide &amp; Heavy Metal Residues</i> | • Shall meet applicable regulatory tolerances for pesticide and heavy metal residues.    |
| <i>Conversion</i>                           | • 11.286 lbs/gallon  |
| <i>Kosher</i>                               | • Certified Circle U pareve  |

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**PROCESSING PARAMETERS**

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|--------------------------|---|
| <i>Additional Screen</i> | • In-line bag filter required   |
| <i>Essence</i>           | • Shall be recovered and distilled to a 150 fold<br>• Shall be packaged separately in 5 gallon pails at 34 lbs<br>• Shall accompany the shipment of concentrate |

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**PACK INFORMATION**

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|-----------------------------|---|
| <i>Pack Style</i>           | • Apple Concentrate – Bulk shipment   |
| <i>Packaging</i>            | • Bulk tanker must conform to JMS tanker/trailer requirement for food safety and security |
| <i>Labeling Information</i> | • Contents of bulk shipment must be properly identified on Bill of Lading                 |

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**QC SPECIAL PROCEDURES**

- |                  |  |
|------------------|--|
| <i>Tests</i>     | • Product testing shall be performed on a continuous basis for each draw off or batch          |
| <i>Samplings</i> | • Sampling plans for micro, Patulin and pesticide residues to be coordinated by the QC Manager |

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GENERAL GUIDELINES

- Storage*
- 0° F within 4 days
  - Maintain refrigerated storage/distribution at 36° F to 40° F