

## Clearbrew® 60/44 Liquid Adjunct

### Product Information

Cargill's Clearbrew® 60/44 Liquid Adjunct is a pure, food grade, clear liquid brewing adjunct which has a high concentration of fermentable sugars and is ideal for the production of full-bodied beers. Clearbrew® 60/44 Liquid Adjunct is manufactured by an acid-enzyme process specifically to meet the quality standards of the brewing industry.

### REPRESENTATIVE CHEMICAL AND PHYSICAL DATA

#### Chemical and Physical Properties

|                         |                 |
|-------------------------|-----------------|
| Refractive Index (45°C) | 1.4972 – 1.5005 |
| Total Extract (%)       | 83.3 – 84.5     |
| Sulfated Ash (%)        | 0.4 max         |
| Protein (%)             | 0.07            |
| pH (1:10)               | 4.5 – 5.3       |
| Sulfur Dioxide (ppm)    | 40 max          |
| Conductivity (30% DS)   | 1000 micromhos  |
| Calories/100g           | 334             |

#### Typical Carbohydrate Profile

(% Dry Basis)

|                                  |       |
|----------------------------------|-------|
| Dextrose                         | 31    |
| Maltose                          | 36    |
| Maltotriose                      | 10    |
| Higher Saccharides               | 23    |
| Total Fermentables (DP1+DP2+DP3) | 75-79 |

#### Microbiological Limits

|                     |                   |
|---------------------|-------------------|
| Mesophilic Bacteria | 1,000 cfu/10g max |
| Yeast               | 100 cfu/10g max   |
| Mold                | 100 cfu/10g max   |

### Sensory Characteristics

|            |                |
|------------|----------------|
| Appearance | Clear Liquid   |
| Taste      | Sweet, Bland   |
| Odor       | Characteristic |

### Density and Viscosity Factors

| Temp (°F) | Specific Gravity (Temp°F/60°F) | Pounds/Gallon (Temp°F) | Pounds/Gallon (DSB) | Viscosity (cP) |
|-----------|--------------------------------|------------------------|---------------------|----------------|
| 80        | 1.4401                         | 12.01                  | 10.07               | 100,000        |
| 90        | 1.4369                         | 11.98                  | 10.05               | 47,000         |
| 100       | 1.4338                         | 11.95                  | 10.03               | 22,000         |
| 110       | 1.4305                         | 11.93                  | 10.01               | 13,000         |
| 120       | 1.4273                         | 11.90                  | 9.98                | 6,500          |
| 140       | 1.4206                         | 11.84                  | 9.94                | 2,000          |

### Regulatory/Labeling Data

|                           |   |
|---------------------------|---|
| United States             |   |
| GRAS Affirmation Labeling | CFR 21 184.1865<br>Corn Syrup                           |
| Canada                    |   |
| FDR Labeling              | B.18.016<br>Glucose Syrup; Glucose (contains sulphites) |

### Shelf Life and Storage

The recommended storage temperature range for Clearbrew® 60/44 Liquid Adjunct is 110 - 130°F. Syrups stored for extended periods (over 6 months) should be evaluated periodically for fitness of use.

*contact*

#### Sweeteners Regional Offices

|   |  |
|---|--|
| 2173 Embassy Drive<br>Lancaster, PA 17603<br>Tel: 800-734-8215<br>Fax: 717-431-3120 | 400 E. Diehl Road, Suite 330<br>Naperville, IL 60563<br>Tel: 800-344-1633<br>Fax: 630-505-7846 |
|---|--|

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Updated 16-Aug-12

## Clearbrew<sup>®</sup> 60/44 Liquid Adjunct

### Nutritional Information

#### Nutritional Profile

The following typical information may be of use in answering questions regarding ingredients in corn sweeteners. Unless specified otherwise, all values are reported on a commercial or "as is" basis.

| Nutrient                | Amount          | Nutrient       | Amount          |
|-------------------------|-----------------|----------------|-----------------|
| Calories                | 334 cal/100 g   | Cadmium        | < 0.05 mg/100 g |
| Moisture                | 16.1 g/100 g    | Caffeine       | < 0.50 mg/100 g |
| Protein                 | 0.07 g/100 g    | Calcium        | < 10 mg/100 g   |
| Ash                     | 0.30 g/100 g    | Chloride       | < 150 mg/100 g  |
| Total Carbohydrate      | 83.6 g/100 g    | Chromium       | < 0.05 mg/100 g |
| Simple Sugar* (DSB**)   | 67.0 g/100 g    | Copper         | < 0.10 mg/100 g |
| Total Fat               | < 0.10 g/100 g  | Fluoride       | < 0.10 mg/100 g |
| Dietary Fiber           | < 0.10 g/100 g  | Iron           | < 0.30 mg/100 g |
| Cholesterol             | < 0.10 mg/100 g | Lead           | < 0.01 mg/100 g |
| Trans Fatty Acid        | < 0.10 g/100 g  | Magnesium      | < 5.0 mg/100 g  |
| Biotin                  | < 0.01 mg/100 g | Manganese      | < 0.05 mg/100 g |
| Niacin                  | < 0.05 mg/100 g | Mercury        | < 0.05 mg/100 g |
| Pantothenic Acid        | < 0.30 mg/100 g | Molybdenum     | < 0.10 mg/100 g |
| Riboflavin              | < 0.01 mg/100 g | Phosphorus     | < 0.01 mg/100 g |
| Thiamin                 | < 0.05 mg/100 g | Potassium      | < 0.10 mg/100 g |
| Vitamin A               | < 15 IU/100 g   | Selenium       | < 0.10 mg/100 g |
| Vitamin B <sub>6</sub>  | < 0.05 mg/100 g | Sodium         | < 100 mg/100 g  |
| Vitamin B <sub>12</sub> | < 0.30 mg/100 g | Sulfur Dioxide | < 4.0 mg/100 g  |
| Vitamin C               | < 0.05 mg/100 g | Zinc           | < 1.0 mg/100 g  |
| Arsenic                 | < 0.10 mg/100 g |                |                 |

\* DP<sub>1</sub> + DP<sub>2</sub>

\*\* Dry Solids Basis

#### contact

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